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3/30/12

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**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
Shoreline Area Data Report**

Prepared for

Boeing

Prepared by

Floyd|Snider
601 Union Street
Suite 600
Seattle, Washington 98101

March 30, 2012

FINAL

USEPA RCRA



3013634

The Boeing Company
P.O. Box 3707
Seattle, WA 98124-2207

WAD 6819
3/30/12
loc

March 29, 2012
9L-22-N410-WDE-057

Reed 3/30/12
O 420pm
M. H. Higgin

HAND DELIVERED

Shawn Blocker
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 900, AWT-121
Seattle, Washington 98101

Subject: *PCB Investigation in the Southern Shoreline Area Data Report*
Submittal
Boeing Plant 2, Seattle/Tukwila, Washington
EPA ID No. WAD 00925 6819
RCRA Docket No. 1092-01-22-3008(h)



Dear Mr. Blocker:

Enclosed please find four (4) copies (each with an attached CD copy) of the subject report. Note that a CD copy is being provided directly to Mr. Fujita.

The investigation and this report follow the work plan of the same name submitted in December 2011. The resulting data will be applied during implementation of the Duwamish Sediment Other Area and Southwest Bank Corrective Measure.

Please contact me with any questions or comments you may have on this important work.

Sincerely,

William D Ernst, 2911

Digitally signed by William D Ernst, 2911
DN: o=Boeing, ou=Secure Messaging, cn=William D Ernst,
cn=2911, email=william.d.ernst@boeing.com
Date: 2012.03.29 07:36:52 -07'00'

Will Ernst
Plant 2 Project Coordinator
Environmental Remediation
M/C 1W-12; 425.891.7724; 206.544.2728 (fax); william.d.ernst@boeing.com

Enclosures

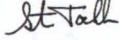
cc: Hideo Fujita, Dept. of Ecology (with CD enclosure)

As required by Section 15.2 of the Boeing Plant 2, Seattle/Tukwila, Washington, RCRA Administrative Order on Consent, (USEPA ID No. WAD 00925 6819, RCRA Docket No. 1092-01-22-3008(h)), this Certification Statement and Signature accompanies submittal of the following report:

Report: *PCB Investigation in the Southern Shoreline Area Data Report*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:



Steven Tochko
Manager, Environmental Remediation

Digitally signed by
steven.tochko@boeing.com
DN: cn=steven.tochko@boeing.com
Reason: I am approving this
document
Date: 2012.03.19 10:03:15 -07'00'

Name: Steven Tochko

Title: Manager, Environmental Remediation

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List of Abbreviations and Acronyms

Abbreviation/ Acronym	Definition
bgs	Below ground surface
Boeing	The Boeing Company
CM	Corrective Measure
DSOA	Duwamish Sediment Other Area
HASP	Health and Safety Plan
FMCL	Final Media Cleanup Level
IDW	Investigation-derived waste
PCB	Polychlorinated biphenyl
Plant 2	Boeing Plant 2
RCRA	Resource Conservation and Recovery Act
SW Bank	Southwest Bank
µg/kg	Micrograms per kilogram
USEPA	U.S. Environmental Protection Agency

1.0 Introduction

The Boeing Company (Boeing) is conducting the Boeing Plant 2 (Plant 2) Duwamish Sediment Other Area (DSOA) and Southwest Bank (SW Bank) Corrective Measure (CM) pursuant to the Administrative Order on Consent (Resource Conservation and Recovery Act [RCRA] Docket No. 1092-01-22-3008(h)) issued to Boeing in 1994 by the U.S. Environmental Protection Agency (USEPA) under authority of RCRA Section 3008(h), as amended (42 USC 6928(h)). This work at Plant 2 is scheduled to commence in 2012 and will include both dredging of sediments and excavation of sediments and soils from the near shore sections of the DSOA, the adjacent banks, and the SW Bank.

As part of this work, additional polychlorinated biphenyl (PCB) data collection was necessary in several distinct areas to supplement the existing data, support the final remedial design, and confirm that the proposed excavation depths provided in the final DSOA Design Report are sufficient to remove contamination to levels that are consistent with or less than the anticipated Final Media Cleanup Levels (FMCLs) for those areas.

This additional investigation was completed at Plant 2 in December 2011 and January 2012 in accordance with the PCB Investigation in the Southern Shoreline Area Work Plan (PCB Work Plan, Floyd|Snider 2011) approved by the USEPA in December 2011. The data collected as part of this investigation are being used to refine the excavation cuts proposed in the DSOA 90% Design Report and will be incorporated into the final design documentation.

2.0 PCB Field Investigation Summary

As part of the DSOA design, PCB data gaps were identified in several distinct areas in the vicinity of the former 2-49 Building and along the SW Bank, as discussed in the PCB Work Plan. Additional samples were collected in these areas to more fully characterize the vertical and lateral extent of PCBs in these areas. All other constituents of concern have been fully delineated in these areas and were not sampled further as part of this investigation. The general location of the data gap investigation areas relative to Plant 2 are presented on Figure 1 and the distinct data gap areas along with historical PCB concentration and depth ranges in soil are included on Figure 2.

This work was conducted in accordance with a Health and Safety Plan (HASP) consistent with safety procedures outlined in the PCB Work Plan. A copy of the HASP was included in the PCB Work Plan.

2.1 FIRE LINE VAULT AREA INVESTIGATION

On December 2, 2011, Floyd|Snider and Golder Associates, Inc. (Golder) personnel observed and documented the excavation of the fire line vault by Boeing's demolition contractor, Harper Construction Company, Inc. (Harper). The fire line vault, which is located along the southern shoreline (refer to Figure 2A), was being decommissioned and removed as part of on-going demolition work.

The fire line vault was excavated by Harper within an approximate 10-foot by 20-foot area to a depth of approximately 5.5 feet below ground surface (bgs). As part of this excavation, the concrete walls and bottom were removed, along with all fire line remnants that were located within the vault. During the excavation, soil staining or odors were not observed. Discrete soil grab samples were collected from the northern (Vault-N) and western (Vault-W) sidewalls (plant north) at approximately 3 feet bgs. Grab samples were also collected from the bottom of the excavation, which was approximately 5.5 bgs, at both locations. The four samples were submitted to Analytical Resources, Inc. (ARI) for laboratory analysis of PCBs by USEPA Method 8082. Soil sample locations and analytical results are shown on Figure 2.A. A copy of the laboratory report is included in Appendix A.

After the completion of the excavation and soil sample collection, the excavated area was backfilled by Harper with clean fill and was restored to original grade. After backfilling was completed, the area was temporarily covered with polyethylene sheeting to prevent water infiltration until the wider area is excavated as part of Plant 2 redevelopment. This area is currently scheduled to be excavated in spring/early summer 2012.

2.2 THE 2-49 BUILDING AREA INVESTIGATION

On January 25, 2012, Floyd|Snider and Environmental Partners, Inc. (EPI) provided oversight to Cascade Drilling LP (Cascade) during the advancement of one soil boring (2-49-SB12-1) between the fire line vault and Well PL2-036A using a truck-mounted, direct-push probe.

Soil samples were collected continuously using 5-foot acetate sleeves from the ground surface to 13 feet bgs. Visual observations regarding soil geology were recorded (refer to Appendix B). Soil staining or odors were not observed. Soil samples were submitted to Lancaster Laboratories (Lancaster) for laboratory analyses of PCBs using USEPA Method 8082 from two

intervals (7–8 and 12–13) from this boring to provide an adequate vertical profile of PCB concentrations in this area. The soil boring location and analytical results are shown on Figures 2.A and 2B. A copy of the laboratory report is included in Appendix A and a copy of the boring log is included in Appendix B.

In addition, three shallow soil borings (2-49-SB12-2, 2-49-SB12-3, and 2-49-SB12-4) were advanced in the vicinity of the stretch press pit and Outfall 12 in the 2-49 Underbuilding area using an AMC hand auger flight kit and rotary hammer drill.¹ Soil samples were collected continuously (using a 1-foot core sampler) starting just below mudline (ground surface in the Underbuilding) to a maximum depth of 9.5 feet below mudline. Soil staining or odors were not observed. Soil samples were submitted to Lancaster for laboratory analyses of PCBs by USEPA Method 8082 from a minimum of two intervals per boring to provide an adequate vertical profile of PCB concentrations in this area. The soil boring locations and analytical results are shown on Figure 2B. A copy of the laboratory report is included in Appendix A, and copies of boring logs are included in Appendix B.

2.3 SOUTHWEST BANK AREA INVESTIGATION BETWEEN SB-06633 AND SB-06616

On January 25, 2012, one soil boring (SWB-SB12-1) was advanced in the SW Bank area between Soil Borings SB-06633 and SB-06616 using a truck-mounted, direct-push probe.

Soil samples were collected continuously using 5-foot acetate sleeves between 15 and 25 feet bgs. Samples were not collected between the ground surface and 15 feet bgs because data were available from those depths from Borings SB-06633 and SB-06616 (refer to Figure 2C). Visual observations regarding soil geology were recorded (refer to boring log in Appendix B). Soil staining or odors were not observed. Soil samples were submitted to Lancaster for laboratory analyses of PCBs using USEPA Method 8082 from three intervals (16–17, 18–20, and 23–25 feet bgs) from this boring to provide a vertical profile of PCB concentrations in this area. The soil boring location and analytical results are shown on Figure 2.C. A copy of the laboratory report is included in Appendix A.

2.4 DECONTAMINATION PROCEDURES

Downhole components such as probe rods, auger flights (for the hand auger flight kit), and the core sampler were decontaminated before use and between soil boring locations and sample intervals using potable water and Alconox™ detergent. In addition, particulate matter and surface film was removed from probe rods and auger flights prior to each interval using a brush. Decontamination wash water was placed in a 55-gallon drum in accordance with procedures described in Section 2.5.

2.5 EXCESS MATERIAL DISPOSAL

Investigation-derived waste (IDW) was generated as part of this work. Excess soil generated during soil boring advancement was placed in a 55-gallon drum. In addition, wash water used during equipment decontamination was also placed in a separate 55-gallon drum. Drum contents were managed as IDW in accordance with applicable state and federal regulations. Concrete debris and pipe (fire lines) removed as part of the excavation were managed as construction debris in conjunction with on-going demolition work.

¹ This area has confined headspace. It was not feasible to mobilize larger equipment into the area.

2.6 SURVEY AND DECOMMISSIONING

Subsequent to the completion of soil sampling, accessible sample locations (Vault-N, Vault-W, SWB-SB12-1, and 2-49-SB12-1) were surveyed by Golder using a 2008 Trimble GeoXT Global Positioning System (GPS). The three Underbuilding sample locations could not be surveyed with the GPS due to their location underneath the building foundation, so these soil boring locations were flagged to document sample locations and measured from fixed points. The sample coordinates are as follows.

Sample Location	Data Source	X-coordinate ¹	Y-coordinate ¹
Vault-N	2008 Trimble GeoXT	1275543.541	196097.997
Vault-W	2008 Trimble GeoXT	1275543.213	196088.4465
SWB-SB12-1	2008 Trimble GeoXT	1275630.224	195932.356
2-49-SB-12-1	2008 Trimble GeoXT	1275525.282	196090.0413
2-49-SB-12-2	Field Measurements	1275504.376	196111.5964
2-49-SB-12-3	Field Measurements	1275495.632	196120.5987
2-49-SB-12-4	Field Measurements	1275486.562	196128.4287

Note:

1 Coordinates are in NAD83 State Plane Washington North; United States Feet.

Abbreviation:

NAD83 North American Datum 1983

Each boring was subsequently decommissioned by Cascade following Washington State Department of Ecology borehole decommissioning regulations found in Washington Administrative Code (WAC) 173-160-460.

3.0 PCB Investigation Results

Soil samples collected from both the fire line excavation and from soil borings were analyzed for PCBs by USEPA Method 8082. Samples were placed in a cooler containing sufficient bagged ice to maintain an internal temperature of 4°C or lower and were delivered to the analytical laboratory under chain-of-custody for analysis (samples were hand-delivered to ARI and shipped via FedEx to Lancaster). Sample containers and handling procedures followed protocols established for Plant 2 sampling as presented in the Compendium (Golder 2011).

3.1 SOIL ANALYTICAL RESULTS

Soil samples collected from the fire line vault excavation sidewalls (Vault-N and Vault-W) did not contain PCBs at concentrations greater than the laboratory Method Detection Limits (MDLs). Soil samples collected from the fire line vault bottom (at 5.5 bgs) contained total PCBs at concentrations of 33 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and 31 $\mu\text{g}/\text{kg}$ from the north (Vault-N) and west (Vault-W) portions of the excavation, respectively.

The three soil samples collected from Boring SWB-SB12-1 did not contain PCBs at concentrations greater than the laboratory MDL (22 $\mu\text{g}/\text{kg}$).

Soil samples collected from Boring 2-49-SB12-1 contained total PCBs at concentrations of 110 $\mu\text{g}/\text{kg}$ (7–8 feet bgs) and 150 $\mu\text{g}/\text{kg}$ (12–13 feet bgs).

Total PCBs were detected in the eight soil samples collected from three Underbuilding soil borings. Soil Boring 2-49-SB12-2 contained total PCBs at concentrations of 370 $\mu\text{g}/\text{kg}$ (3–4 feet bgs) and 550 $\mu\text{g}/\text{kg}$ (5–6 feet bgs). Soil Boring 2-49-SB12-3 contained total PCBs at concentrations of 502 $\mu\text{g}/\text{kg}$ (3–4 bgs) and 610 $\mu\text{g}/\text{kg}$ (4–4.5 feet bgs). Soil Boring 2-49-SB12-4 contained total PCBs at concentrations of 1,700 $\mu\text{g}/\text{kg}$ (2.5–4 feet bgs), 5,100 $\mu\text{g}/\text{kg}$ (4.5–5.5 feet bgs), 2,500 $\mu\text{g}/\text{kg}$ (8.5–9 feet bgs), and 4,400 $\mu\text{g}/\text{kg}$ (9–9.5 feet bgs).

Soil sample results for total PCBs are summarized in Table 1 and copies of the laboratory reports are included in Appendix A. Soil sample locations and analytical results are also presented on Figures 2A, 2B, and 2C.

3.2 QUALITY CONTROL AND DATA VALIDATION

Field and laboratory quality control samples were collected and analyzed as part of the investigation to evaluate field sampling and analytical reproducibility. A field duplicate sample was collected from Soil Boring 2-49-SB12-3 (3–4) on January 25, 2012. The results indicated that the samples had a relative percent difference of 34 percent, which is within acceptable limits for the media.

Nitrile gloves were used at all times during sample collection and changed often to prevent cross-contamination. Field sampling equipment, such as a stainless bowl, spoon, and core sampler, was decontaminated before use and between each sample collected.

Analytical results from ARI were reviewed and validated by Golder prior to entry in the Plant 2 RCRA database and use in this report, and analytical results from Lancaster were reviewed and validated by Floyd|Snider prior to entry in the database and use in this report. Copies of the data validation reports are included in Appendix C.

3.3 SUMMARY OF FINDINGS

Data gaps in the Fire Vault Area have been resolved and PCB impacts are well delineated in this area as a result of this investigation. Modifications to the 90% design cuts in this area are not necessary.

Data gaps in the depth of PCB contamination in the central section of the Southwest Bank have been resolved and PCB impacts are well delineated in this area as a result of this investigation. Modifications to the 90% design cuts in this area are not necessary.

PCB contamination in the Outfall 12 and Stretch Press Pit area beneath the former 2-49 Building is delineated horizontally but is not sufficiently delineated with depth. The deepest samples at all three borings exceeded the FMCL of 130 µg/kg dry weight. Provisions will be made in the 100% DSOA Design Package for additional characterization during the remedial action.

4.0 REFERENCES

Golder and Associates. 2011. *Compendium of Sampling and Analysis Plans and Quality Assurance Project Plans for Boeing Plant 2, Seattle/Tukwila Washington*. Prepared for The Boeing Company. January.

Floyd|Snider. 2011. *PCB Investigation in the Southern Shoreline Area Work Plan for Boeing Plant 2, Seattle/Tukwila Washington*. Prepared for The Boeing Company.

**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
Shoreline Area Data Report**

Tables

FINAL

Table 1
PCB Investigation Data Summary

Sample Location	Sample Identification	Data Gap Area	Total PCBs ($\mu\text{g}/\text{kg}$)
<i>Fire Line Vault Excavation Samples (December 2, 2011)</i>			
Vault-N	Vault-Ns(3)	Fire Line Vault	32U
Vault-N	Vault-Nb(5.5)	Fire Line Vault	33
Vault-W	Vault-Ws(3)	Fire Line Vault	33U
Vault-W	Vault-Wb(5.5)	Fire Line Vault	31
<i>Soil Borings (January 25, 2012)</i>			
SWB-SB12-1	SWB-SB12-1(16-17')	Southwest Bank	22U
SWB-SB12-1	SWB-SB12-1(18-20')	Southwest Bank	21U
SWB-SB12-1	SWB-SB12-1(23-25')	Southwest Bank	21U
2-49-SB12-1	2-49-SB12-1(7-8')	Fire Line Vault Area	110
2-49-SB12-1	2-49-SB12-1(12-13')	Fire Line Vault Area	150
2-49-SB12-2	2-49-SB12-2(3-4')	2-49 Under-building Area	370
2-49-SB12-2	2-49-SB12-2(5-6')	2-49 Under-building Area	550
2-49-SB12-3	2-49-SB12-3(3-4')	2-49 Under-building Area	502
Field Duplicate	2-49-SB12-3(3-4')	2-49 Under-building Area	710
2-49-SB12-3	2-49-SB12-3(4-4.5')	2-49 Under-building Area	610
2-49-SB12-4	2-49-SB12-4(2.5-4')	2-49 Under-building Area	1,700
2-49-SB12-4	2-49-SB12-4(4.5-5.5')	2-49 Under-building Area	5,100
2-49-SB12-4	2-49-SB12-4(8.5-9')	2-49 Under-building Area	2,500
2-49-SB12-4	2-49-SB12-4(9-9.5')	2-49 Under-building Area	4,400

Note:

130 Concentrations in ***bold italics*** exceed the Final Media Cleanup Level of 130 $\mu\text{g}/\text{kg}$ (based on Sediment Management Standards (SMS) Sediment Quality Standards (SQS) expressed as dry weight)

Abbreviations:

$\mu\text{g}/\text{kg}$ Micrograms per kilogram
PCB Polychlorinated biphenyl

Qualifier:

U Not Detected at the detection limit shown

**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
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Figures

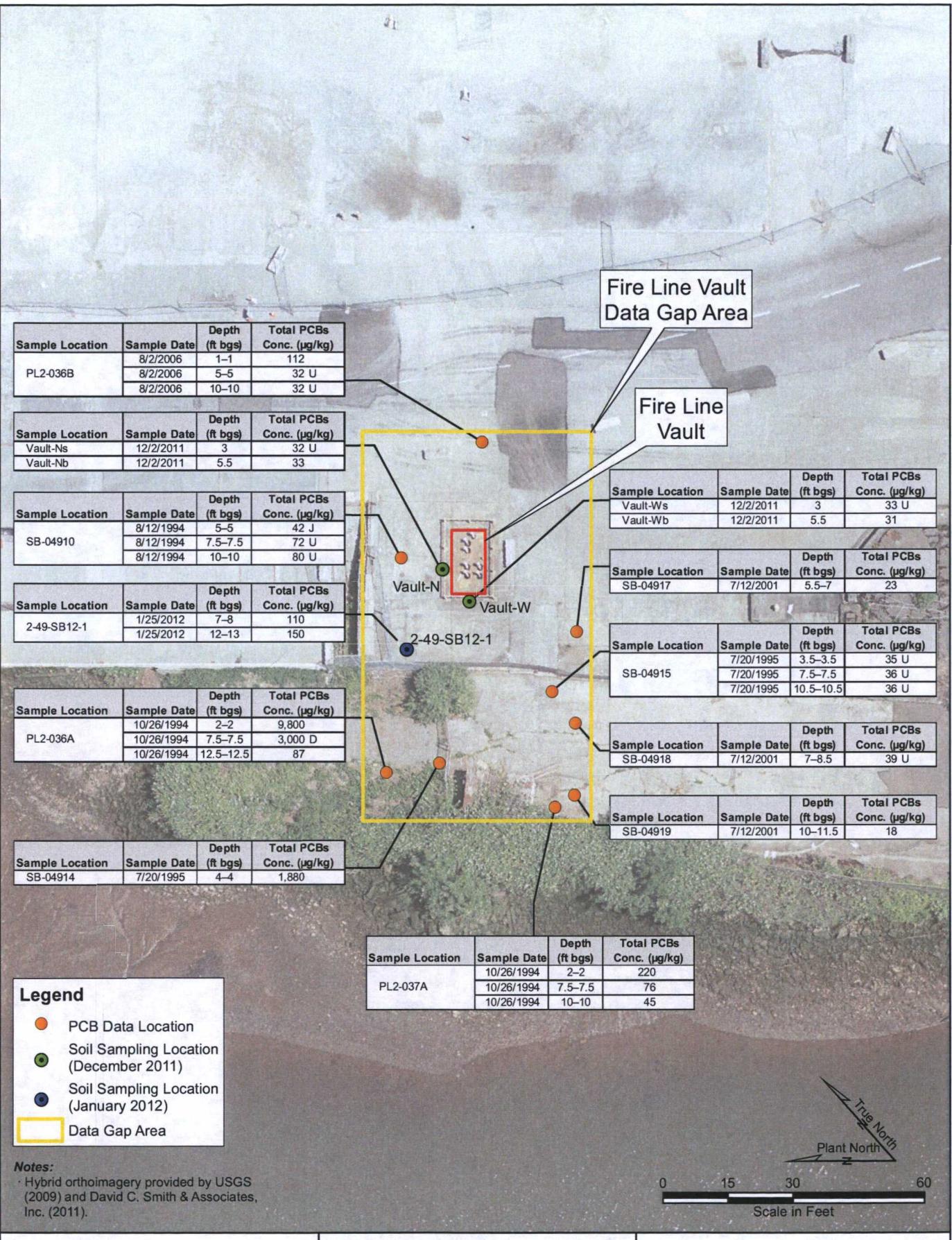
FINAL

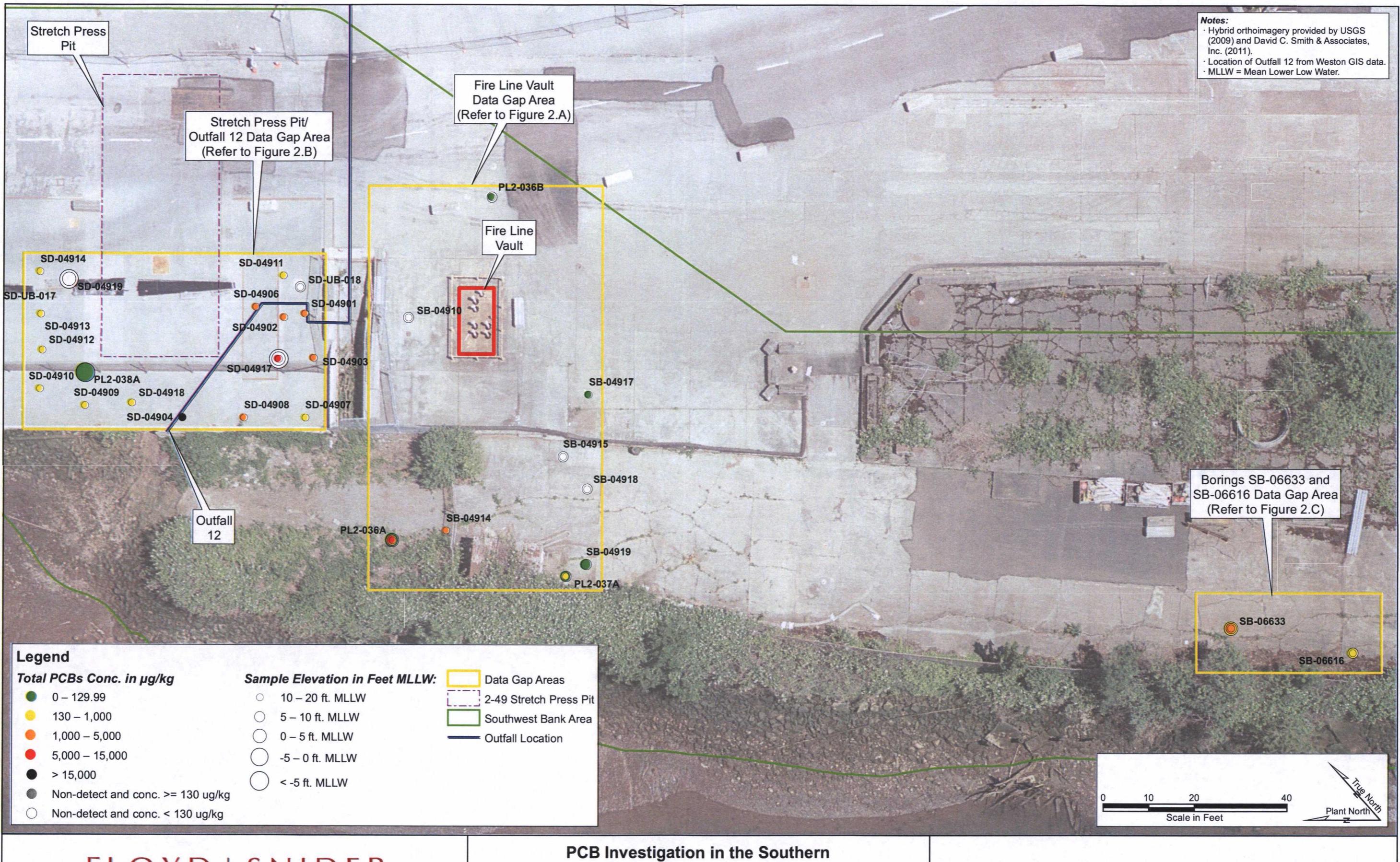


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Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1
Data Gap Location Map

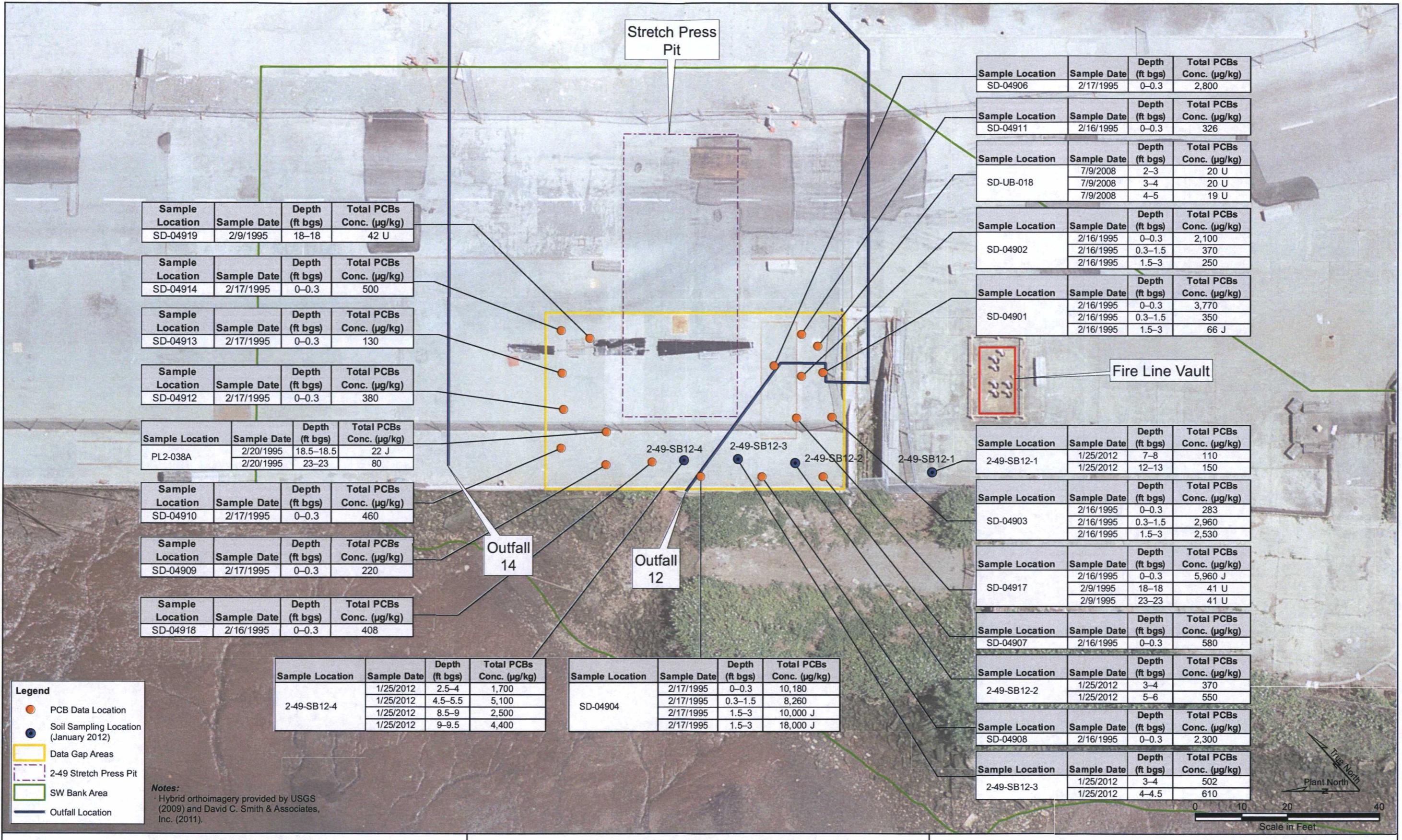




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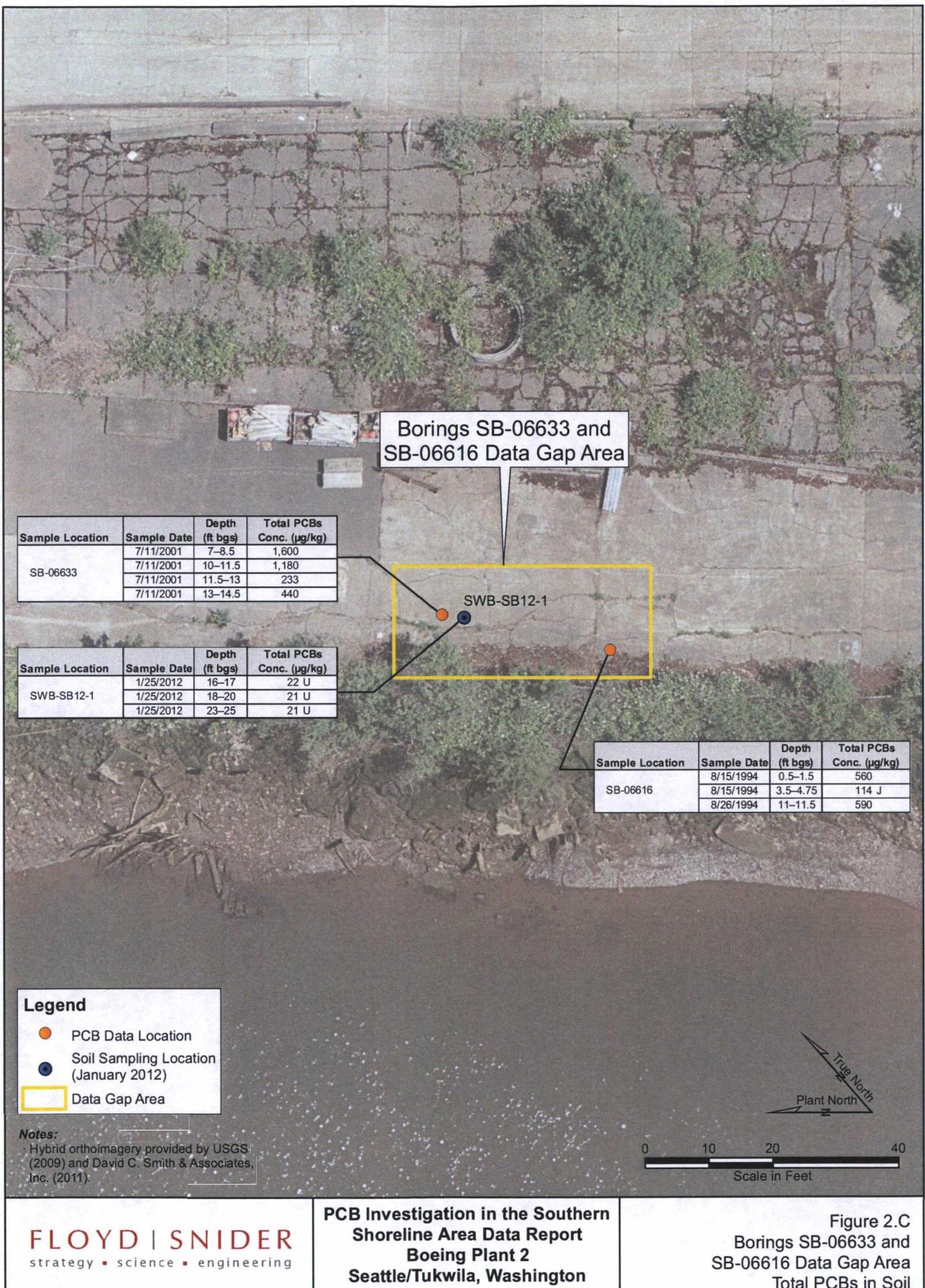
Figure 2
Data Gap Areas and Associated PCB Concentrations



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Boeing Plant 2
Seattle/Tukwila, Washington

Figure 2.B
Stretch Press Pit/Outfall 12 Data Gap Area
Total PCBs in Soil/Sediment



**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
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**Appendix A
Laboratory Results**

FINAL



Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 10, 2011

Kent Angelos
Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Client Project: Plant 2 Demo
ARI Job: TZ81

Dear Mr. Angelos:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final results for the project referenced above. Analytical Resources, Inc. (ARI) accepted four solid samples on December 2, 2011. The samples were received with a cooler temperature of 6.1°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for PCBs, as requested on the COC.

There were no other anomalies associated with the samples.

An electronic copy of this report and all associated raw data will be kept on file with ARI. Should you have any questions or problems, please feel free to call me at any time.

Respectfully,

ANALYTICAL RESOURCES, INC.


Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: TZ81 Turn-around Requested:

ABI Client Company: Boeing / Floyd Snider Phone: 425-292-2078 (F/S)

Client Contact: Lynn Grochala / AOF/S ; Will Ernst @ Boeing

Client Project Name: ERNST Demolition Support (waste characterization)

Client Project #: BP2 - FireLine Vault Samplers: LMG

Sample ID	Date	Time	Matrix	No Containers
-----------	------	------	--------	---------------

BP2-Vault-NS (3) 12/2/11 1105 Soil 1 X

BP2-Vault-NB (5.5) 12/2/11 1125 1 X

BP2-Vault-Ws (3) 12/2/11 1110 1 X

BP2-Vault-NB () 12/2/11

BP2-Vault-NB (5.5) 12/2/11 1145 Soil 1 X

Page: 1 of 1

Date: 12/2/11 Ice Present? Y

No. of Coolers: 1 Cooler Temps: 60.1



Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Analysis Requested						Notes/Comments	
<u>P</u>	<u>C</u>	<u>R</u>	<u>S</u>	<u>S</u>	<u>S</u>		

Comments/Special Instructions
 copy to:
Lynn Grochala - F/S
Will Ernst - Boeing
 bill to: Boeing
 Relinquished by: Lynn Grochala Received by: Jennifer Millsap Relinquished by: Jennifer Millsap Received by: Jennifer Millsap
 (Signature) (Signature) (Signature)
 Printed Name: Floyd Snider Printed Name: Jennifer Millsap Printed Name: Jennifer Millsap
 Company: Lynn Grochala Company: A&L Company: A&L
 Date & Time: 10/2/11 13:10 Date & Time: 12/2/11 13:10 Date & Time: 12/2/11 13:10

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Sample ID Cross Reference Report

ANALYTICAL
RESOURCES 
INCORPORATED

ARI Job No: TZ81
Client: The Boeing Company
Project Event: BP2-Fire Line Vault
Project Name: Ernst Demolition Support

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. BP2-Vault-Ns (3)	TZ81A	11-27850	Soil	12/02/11 11:05	12/02/11 13:10
2. BP2-Vault-Nb (5.5)	TZ81B	11-27851	Soil	12/02/11 11:25	12/02/11 13:10
3. BP2-Vault-Ws (3)	TZ81C	11-27852	Soil	12/02/11 11:10	12/02/11 13:10
4. BP2-Vault-Wb (5.5)	TZ81D	11-27853	Soil	12/02/11 11:45	12/02/11 13:10

Printed 12/02/11



ARI Client: Boeing

COC No(s) _____ TZ81 NA

Assigned ARI Job No TZ81

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?

YES NO

Were custody papers included with the cooler?

YES NO

Were custody papers properly filled out (ink, signed, etc)

YES NO

Temperature of Cooler(s) (°C) (recommended 2-6-0 °C for chemistry).

6.1

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by. JM Date 12/2/11 Time. 1310

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?

YES NO

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

NA YES NO

Was sufficient ice used (if appropriate)?

YES NO

Were all bottles sealed in individual plastic bags?

YES NO

Did all bottles arrive in good condition (unbroken)?

YES NO

Were all bottle labels complete and legible?

YES NO

Did the number of containers listed on COC match with the number of containers received?

YES NO

Did all bottle labels and tags agree with custody papers?

YES NO

Were all bottles used correct for the requested analyses?

YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)

NA YES NO

Were all VOC vials free of air bubbles?

NA YES NO

Was sufficient amount of sample sent in each bottle?

YES NO

Date VOC Trip Blank was made at ARI.

NA Split by. _____

Was Sample Split by ARI. NA YES Date/Time. _____ Equipment: _____

Samples Logged by. JM Date: 12/2/11 Time: 1637

** Notify Project Manager of discrepancies or concerns **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By.	Date	Small Air Bubbles ~2mm • • •	Peabubbles' 2-4 mm • • •	LARGE Air Bubbles > 4 mm • • •	Small → "sm" Peabubbles → "pb" Large → "lg" Headspace → "hs"



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Temperature Compliance Form

TZ8)

Completed by:

JM

Date: _____

12/2/11

Time:

1638

D0070F

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
 Page 1 of 1

Lab Sample ID: TZ81A
 LIMS ID: 11-27850
 Matrix: Soil
 Data Release Authorized: **VD**
 Reported: 12/10/11

Date Extracted: 12/06/11
 Date Analyzed: 12/07/11 15:08
 Instrument/Analyst: ECD5/AAR
 GPC Cleanup: No
 Sulfur Cleanup: Yes
 Acid Cleanup: Yes
 Florisil Cleanup: No

QC Report No: TZ81-The Boeing Company
 Project: Ernst Demolition Support
 BP2-Fire Line Vault
 Date Sampled: 12/02/11
 Date Received: 12/02/11

Sample Amount: 12.5 g-dry-wt
 Final Extract Volume: 4.00 mL
 Dilution Factor: 1.00
 Silica Gel: No

Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in $\mu\text{g}/\text{kg}$ (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	86.5%

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Lab Sample ID: TZ81B
LIMS ID: 11-27851
Matrix: Soil
Data Release Authorized: *VR*
Reported: 12/10/11

Date Extracted: 12/06/11
Date Analyzed: 12/07/11 15:27
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

QC Report No: TZ81-The Boeing Company
Project: Ernst Demolition Support
BP2-Fire Line Vault
Date Sampled: 12/02/11
Date Received: 12/02/11

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 10.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	33
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	105%
Tetrachlorometaxylene	88.2%

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Lab Sample ID: TZ81C
LIMS ID: 11-27852
Matrix: Soil
Data Release Authorized: VB
Reported: 12/10/11

Date Extracted: 12/06/11
Date Analyzed: 12/07/11 15:46
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample ID: BP2-Vault-Ws (3)
SAMPLE

QC Report No: TZ81-The Boeing Company
Project: Ernst Demolition Support
BP2-Fire Line Vault
Date Sampled: 12/02/11
Date Received: 12/02/11

Sample Amount: 12.2 g-dry-wt
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 7.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.0%
Tetrachlorometaxylene	69.0%

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Lab Sample ID: TZ81D
LIMS ID: 11-27853
Matrix: Soil
Data Release Authorized: *VR*
Reported: 12/10/11

Date Extracted: 12/06/11
Date Analyzed: 12/07/11 16:05
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

QC Report No: TZ81-The Boeing Company
Project: Ernst Demolition Support
BP2-Fire Line Vault
Date Sampled: 12/02/11
Date Received: 12/02/11

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 9.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	31
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U

Reported in $\mu\text{g}/\text{kg}$ (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	86.2%

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Lab Sample ID: MB-120611
LIMS ID: 11-27850
Matrix: Soil
Data Release Authorized: VTS
Reported: 12/10/11

Date Extracted: 12/06/11
Date Analyzed: 12/07/11 11:02
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample ID: MB-120611
METHOD BLANK

QC Report No: TZ81-The Boeing Company
Project: Ernst Demolition Support
BP2-Fire Line Vault
Date Sampled: NA
Date Received: NA

Sample Amount: 12.0 g
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.2%
Tetrachlorometaxylene	90.0%

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: TZ81-The Boeing Company
 Project: Ernst Demolition Support
 BP2-Fire Line Vault

Client ID	DCBP	DCBP	TCMX	TCMX	TOT	OUT
	% REC	LCL-UCL	% REC	LCL-UCL		
MB-120611	97.2%	51-112	90.0%	46-111	0	
LCS-120611	95.0%	51-112	87.2%	46-111	0	
LCSD-120611	100%	51-112	93.0%	46-111	0	
BP2-Vault-Ns(3)	88.5%	42-127	86.5%	50-114	0	
BP2-Vault-Nb(5.5)	105%	42-127	88.2%	50-114	0	
BP2-Vault-Ws(3)	71.0%	42-127	69.0%	50-114	0	
BP2-Vault-Wb(5.5)	89.2%	42-127	86.2%	50-114	0	

Microwave (MARS) Control Limits PCBSMI
 Prep Method: SW3546
 Log Number Range: 11-27850 to 11-27853

FORM-II SW8082

ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: LCS-120611

LIMS ID: 11-27850

Matrix: Soil

Data Release Authorized: VBS

Reported: 12/10/11

Date Extracted LCS/LCSD: 12/06/11

Date Analyzed LCS: 12/07/11 11:21
LCSD: 12/07/11 11:40Instrument/Analyst LCS: ECD5/AAR
LCSD: ECD5/AAR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

**ANALYTICAL
RESOURCES
INCORPORATED**

Sample ID: LCS-120611
LCS/LCSDQC Report No: TZ81-The Boeing Company
Project: Ernst Demolition Support
BP2-Fire Line Vault
Date Sampled: NA
Date Received: NASample Amount LCS: 12.0 g-dry-wt
LCSD: 12.0 g-dry-wt
Final Extract Volume LCS: 4.00 mL
LCSD: 4.00 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	133	167	79.6%	141	167	84.4%	5.8%
Aroclor 1260	146	167	87.4%	152	167	91.0%	4.0%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	95.0%	100%
Tetrachlorometaxylene	87.2%	93.0%

Results reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.



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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

February 06, 2012

Project: Boeing Plant 2

Submittal Date: 01/26/2012
Group Number: 1286762
PO Number: P2DG-DSOA
State of Sample Origin: WA

Client Sample Description

BP2-2-49-SB12-1(7-8') Grab Soil
BP2-2-49-SB12-1(12-13') Grab Soil
BP2-SWB-SB12-1(16-17') Grab Soil
BP2-SWB-SB12-1(18-20') Grab Soil
BP2-SWB-SB12-1(23-25') Grab Soil
BP2-2-49-SB12-2(3-4') Grab Soil
BP2-2-49-SB12-2(5-6') Grab Soil
BP2-2-49-SB12-3(3-4') Grab Soil
Field Duplicate Grab Soil
BP2-2-49-SB12-3(4-4.5') Grab Soil
BP2-2-49-SB12-4(2.5-4') Grab Soil
BP2-2-49-SB12-4(4.5-5.5') Grab Soil
BP2-2-49-SB12-4(8.5-9') Grab Soil
BP2-2-49-SB12-4(9-9.5') Grab Soil

Lancaster Labs (LLI)

6532790
6532791
6532792
6532793
6532794
6532795
6532796
6532799
6532800
6532801
6532802
6532803
6532804
6532805

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TO
ELECTRONIC
COPY TO

Floyd Snider
The Boeing Company

Attn: Lynn Grochala
Attn: Will Ernst

Analysis Report

Questions? Contact your Client Services Representative
Elizabeth A Leonhardt at (510) 232-8894

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

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Page 1 of 1

Sample Description: BP2-2-49-SB12-1(7-8') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532790
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 10:10 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49107

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
01216 PCB-1016	12674-11-2	N.D.	20	1	
01216 PCB-1221	11104-28-2	N.D.	20	1	
01216 PCB-1232	11141-16-5	N.D.	20	1	
01216 PCB-1242	53469-21-9	N.D.	20	1	
01216 PCB-1248	12672-29-6	N.D.	20	1	
01216 PCB-1254	11097-69-1	N.D.	20	1	
01216 PCB-1260	11096-82-5	110	20	1	
Wet Chemistry	EPA 160.3 modified	%	%		
00111 Moisture	n.a.	13.6	0.50	1	

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 11:38	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Page 1 of 1

Sample Description: BP2-2-49-SB12-1(12-13') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532791
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 10:20 by LG

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49112

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	20	1
01216 PCB-1221		11104-28-2	N.D.	20	1
01216 PCB-1232		11141-16-5	N.D.	20	1
01216 PCB-1242		53469-21-9	N.D.	20	1
01216 PCB-1248		12672-29-6	N.D.	20	1
01216 PCB-1254		11097-69-1	N.D.	20	1
01216 PCB-1260		11096-82-5	150	20	1
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	13.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 11:49	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Page 1 of 1

Sample Description: BP2-SWB-SB12-1(16-17') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532792
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 10:50 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

SWB16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	22	1
01216 PCB-1221		11104-28-2	N.D.	22	1
01216 PCB-1232		11141-16-5	N.D.	22	1
01216 PCB-1242		53469-21-9	N.D.	22	1
01216 PCB-1248		12672-29-6	N.D.	22	1
01216 PCB-1254		11097-69-1	N.D.	22	1
01216 PCB-1260		11096-82-5	N.D.	22	1

Wet Chemistry **EPA 160.3 modified**

00111 Moisture	n.a.	%	%
		21.5	0.50

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

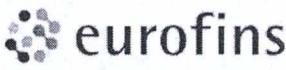
General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 12:00	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1



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Analysis Report

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Page 1 of 1

Sample Description: BP2-SWB-SB12-1(18-20') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532793
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 11:00 by LG

The Boeing Company

Submitted: 01/26/2012 09:00

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Reported: 02/06/2012 14:34

SWB18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	21	1
01216 PCB-1221		11104-28-2	N.D.	21	1
01216 PCB-1232		11141-16-5	N.D.	21	1
01216 PCB-1242		53469-21-9	N.D.	21	1
01216 PCB-1248		12672-29-6	N.D.	21	1
01216 PCB-1254		11097-69-1	N.D.	21	1
01216 PCB-1260		11096-82-5	N.D.	21	1
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	18.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 12:12	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Page 1 of 1

Sample Description: BP2-SWB-SB12-1(23-25') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532794
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 11:15 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

SWB23

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	21	1
01216 PCB-1221		11104-28-2	N.D.	21	1
01216 PCB-1232		11141-16-5	N.D.	21	1
01216 PCB-1242		53469-21-9	N.D.	21	1
01216 PCB-1248		12672-29-6	N.D.	21	1
01216 PCB-1254		11097-69-1	N.D.	21	1
01216 PCB-1260		11096-82-5	N.D.	21	1
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	19.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 12:23	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Page 1 of 1

Sample Description: BP2-2-49-SB12-2(3-4') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532795
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 12:35 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49203

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	21	1
01216 PCB-1221		11104-28-2	N.D.	21	1
01216 PCB-1232		11141-16-5	N.D.	21	1
01216 PCB-1242		53469-21-9	N.D.	21	1
01216 PCB-1248		12672-29-6	100	21	1
01216 PCB-1254		11097-69-1	N.D.	21	1
01216 PCB-1260		11096-82-5	270	21	1
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	19.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 12:35	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: BP2-2-49-SB12-2 (5-6') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532796
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 12:55 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49205

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016	12674-11-2	N.D.	110	5	
01216 PCB-1221	11104-28-2	N.D.	110	5	
01216 PCB-1232	11141-16-5	N.D.	110	5	
01216 PCB-1242	53469-21-9	N.D.	110	5	
01216 PCB-1248	12672-29-6	N.D.	110	5	
01216 PCB-1254	11097-69-1	N.D.	110	5	
01216 PCB-1260	11096-82-5	550	110	5	
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture	n.a.	24.3		0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/06/2012 10:57	Richard A Shober	5
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: BP2-2-49-SB12-3(3-4') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532799
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 13:45 by LG

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49303

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	22	1
01216 PCB-1221		11104-28-2	N.D.	22	1
01216 PCB-1232		11141-16-5	N.D.	22	1
01216 PCB-1242		53469-21-9	N.D.	22	1
01216 PCB-1248		12672-29-6	82	22	1
01216 PCB-1254		11097-69-1	N.D.	22	1
01216 PCB-1260		11096-82-5	420	22	1
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	22.1	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 13:21	Richard A Shober	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: Field Duplicate Grab Soil
Boeing Plant 2

LLI Sample # SW 6532800
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 13:45 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

493FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
	Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	
01216	PCB-1016	12674-11-2	N.D.	110	5
01216	PCB-1221	11104-28-2	N.D.	110	5
01216	PCB-1232	11141-16-5	N.D.	110	5
01216	PCB-1242	53469-21-9	N.D.	110	5
01216	PCB-1248	12672-29-6	250	110	5
01216	PCB-1254	11097-69-1	N.D.	110	5
01216	PCB-1260	11096-82-5	460	110	5
00111	Wet Chemistry Moisture	EPA 160.3 modified n.a.	% 20.5	% 0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/06/2012 11:31	Richard A Shober	5
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1



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Analysis Report

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Sample Description: BP2-2-49-SB12-3(4-4.5') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532801
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 13:55 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49304

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	110	5
01216 PCB-1221		11104-28-2	N.D.	110	5
01216 PCB-1232		11141-16-5	N.D.	110	5
01216 PCB-1242		53469-21-9	N.D.	110	5
01216 PCB-1248		12672-29-6	220	110	5
01216 PCB-1254		11097-69-1	N.D.	110	5
01216 PCB-1260		11096-82-5	390	110	5
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	22.6	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/06/2012 11:43	Richard A Shober	5
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: BP2-2-49-SB12-4 (2.5-4') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532802
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 14:10 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

19402

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
	Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	
01216	PCB-1016	12674-11-2	N.D.	110	5
01216	PCB-1221	11104-28-2	N.D.	110	5
01216	PCB-1232	11141-16-5	N.D.	110	5
01216	PCB-1242	53469-21-9	N.D.	110	5
01216	PCB-1248	12672-29-6	N.D.	110	5
01216	PCB-1254	11097-69-1	N.D.	110	5
01216	PCB-1260	11096-82-5	1,700	110	5
	Wet Chemistry	EPA 160.3 modified	%	%	
00111	Moisture	n.a.	20.9	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 13:55	Richard A Shoer	5
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: BP2-2-49-SB12-4(4.5-5.5') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532803
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 14:15 by LG

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49404

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216	PCB-1016	12674-11-2	N.D.	1,100	50
01216	PCB-1221	11104-28-2	N.D.	1,100	50
01216	PCB-1232	11141-16-5	N.D.	1,100	50
01216	PCB-1242	53469-21-9	N.D.	1,100	50
01216	PCB-1248	12672-29-6	N.D.	1,100	50
01216	PCB-1254	11097-69-1	N.D.	1,100	50
01216	PCB-1260	11096-82-5	5,100	1,100	50

Wet Chemistry EPA 160.3 modified

00111 Moisture n.a. 25.9 % %

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 14:07	Richard A Shober	50
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

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Sample Description: BP2-2-49-SB12-4 (8.5-9') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532804
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 14:40 by LG

The Boeing Company

PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49408

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
	Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	
01216	PCB-1016	12674-11-2	N.D.	440	20
01216	PCB-1221	11104-28-2	N.D.	440	20
01216	PCB-1232	11141-16-5	N.D.	440	20
01216	PCB-1242	53469-21-9	N.D.	440	20
01216	PCB-1248	12672-29-6	N.D.	440	20
01216	PCB-1254	11097-69-1	N.D.	440	20
01216	PCB-1260	11096-82-5	2,500	440	20
00111	Wet Chemistry Moisture	EPA 160.3 modified n.a.	% 22.5	% 0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/06/2012 11:54	Richard A Shober	20
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1



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Analysis Report

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Sample Description: BP2-2-49-SB12-4(9-9.5') Grab Soil
Boeing Plant 2

LLI Sample # SW 6532805
LLI Group # 1286762
Account # 13419

Project Name: Boeing Plant 2

Collected: 01/25/2012 14:50 by LG

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Submitted: 01/26/2012 09:00

Reported: 02/06/2012 14:34

49409

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
01216 PCB-1016		12674-11-2	N.D.	1,100	50
01216 PCB-1221		11104-28-2	N.D.	1,100	50
01216 PCB-1232		11141-16-5	N.D.	1,100	50
01216 PCB-1242		53469-21-9	N.D.	1,100	50
01216 PCB-1248		12672-29-6	N.D.	1,100	50
01216 PCB-1254		11097-69-1	N.D.	1,100	50
01216 PCB-1260		11096-82-5	4,400	1,100	50
Wet Chemistry	EPA 160.3 modified		%	%	
00111 Moisture		n.a.	20.5	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01216	PCBs in Solids	SW-846 8082	1	120310008A	02/02/2012 14:30	Richard A Shober	50
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	120310008A	01/31/2012 18:00	Sally L Appleyard	1
00111	Moisture	EPA 160.3 modified	1	12032820004A	02/01/2012 19:03	Scott W Freisher	1

Quality Control Summary

Client Name: The Boeing Company
 Reported: 02/06/12 at 02:34 PM

Group Number: 1286762

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 120310008A			Sample number(s): 6532790-6532796, 6532799-6532805					
PCB-1016	N.D.	17.	ug/kg	78		68-116		
PCB-1221	N.D.	17.	ug/kg					
PCB-1232	N.D.	17.	ug/kg					
PCB-1242	N.D.	17.	ug/kg					
PCB-1248	N.D.	17.	ug/kg					
PCB-1254	N.D.	17.	ug/kg					
PCB-1260	N.D.	17.	ug/kg	97		72-120		
Batch number: 12032820004A			Sample number(s): 6532790-6532796, 6532799-6532805					
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>BKG MAX</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 120310008A			Sample number(s): 6532790-6532796, 6532799-6532805 UNSPK: 6532796					
PCB-1016	100	99	45-130	1	50			
PCB-1260	106	100	39-149	2	50			
Batch number: 12032820004A			Sample number(s): 6532790-6532796, 6532799-6532805 BKG: 6532796					
Moisture				24.3	24.4	0		15

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PCBs in Solids

Batch number: 120310008A

Tetrachloro-m-xylene Decachlorobiphenyl

6532790	99	117
6532791	96	113
6532792	89	109
6532793	101	116

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 02/06/12 at 02:34 PM

Group Number: 1286762

Surrogate Quality Control

6532794	96	112
6532795	90	128
6532796	101	125
6532799	93	109
6532800	98	115
6532801	96	118
6532802	99	98
6532803	114	140*
6532804	107	137*
6532805	115	145*
Blank	97	114
LCS	93	119
MS	100	118
MSD	98	127

Limits: 53-139 53-133

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Project Name: Boeing Plant 2
LLI Group #: 1286762

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8082, Pesticides/PCBs

Batch #: 120310008A (Sample number(s): 6532790-6532796, 6532799-6532805 UNSPK: 6532796)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 6532803, 6532804, 6532805

Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 13419 Group# 1286762 Sample # 6530190-805

COC # 213857

Please print. Instructions on reverse side correspond with circled numbers.

1 Client: <u>Boeing</u> Acct. #: _____ Project Name/#: <u>BP2 DG - DSOA</u> PWSID #: _____ Project Manager: <u>Will Ernst</u> P.O.#: _____ Sampler: <u>Lynn Grechala, Floyd Snider</u> File #: _____ Name of state where samples were collected: <u>WA</u>				5 Analyses Requested Preservation Codes <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Matrix</th> <th colspan="3">4</th> <th colspan="3">5</th> <th colspan="3">6</th> </tr> <tr> <th><input type="checkbox"/> Potable</th> <th><input type="checkbox"/> Check if Applicable</th> <th><input type="checkbox"/> NPDES</th> <th>Total # of Containers</th> <th>TOTAL PCBs</th> <th>Metals</th> <th>cPbHg</th> <th>Remarks</th> <th>Signature of sample upon receipt (if requested)</th> </tr> </thead> <tbody> <tr> <td>Soil</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Water</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										Matrix	4			5			6			<input type="checkbox"/> Potable	<input type="checkbox"/> Check if Applicable	<input type="checkbox"/> NPDES	Total # of Containers	TOTAL PCBs	Metals	cPbHg	Remarks	Signature of sample upon receipt (if requested)	Soil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Matrix	4			5			6																																																				
	<input type="checkbox"/> Potable	<input type="checkbox"/> Check if Applicable	<input type="checkbox"/> NPDES	Total # of Containers	TOTAL PCBs	Metals	cPbHg	Remarks	Signature of sample upon receipt (if requested)																																																		
Soil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																								
Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																								
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																								
2 Sample Identification				3 Date Collected	Time Collected	Grab Composite	4 Total # of Containers	5 TOTAL PCBs Metals cPbHg																																																			
BP2-2-41-SB12-1 (7-8') BP2-2-49-SB12-1 (12-13') BP2-SWB-SB12-1 (16-17') BP2-SWB-SB12-1 (18-20') BP2-SWB-SB12-1 (23-25') BP2-2-49-SB12-2 (3-4') BP2-2-49-SB12-2 (5-6') MS/MSD(2-49-SB12-2(5-6')) BP2-2-49-SB12-3 (3-4') Field Duplicate (SB12-3E3-4'?) 1/25/12 10:10 X X 1 X 1/25/12 10:20 X X 1 X 1/25/12 10:50 X X 1 X 1/25/12 11:00 X X 1 X 1/25/12 11:15 X X 2 X X X 1/25/12 1235 X X 1 X 1/25/12 1255 X X 1 X 1/25/12 1255 X X 1 X 1/25/12 1345 X X 1 X 1/25/12 1345 X X 1 X				6 H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other	7 Turnaround Time Requested (TAT) (please circle): Normal Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: _____ Rush results requested by (please circle): Phone Fax E-mail Phone #: _____ Fax #: _____ E-mail address: _____																																																						
8 Data Package Options (please circle if required)				SDG Complete? Yes No	Relinquished by: <u>John M</u> Date: <u>1/26/12</u> Time: <u>1650</u> Received by: _____ Date: _____ Time: _____																																																						
Type I (validation/NJ Reg) Type II (Tier II) Type III (Reduced NJ) Type IV (CLP SOW) Type VI (Raw Data Only)				TX TRRP-13 MA MCP CT RCP Site-specific QC (MS/MSD/Dup)? <u>Yes</u> No <small>(If yes, indicate QC sample and submit triplicate volume.)</small>	Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____																																																						
Internal COC Required? Yes / No _____				Relinquished by: _____ Date: _____ Time: _____ Received by: <u>John M</u> Date: <u>1/26/12</u> Time: <u>0900</u>																																																							

Actst

Group

Sample #:

Client Information					Requested Analyses							Comments / Remarks	
Site Location:	Boeing Seattle, WA												
Site Project:	Plant 2												
Site Program / #:	P2DG - DS0A												
Boeing PM:	Will Ernst												
Consultant Contact:	Lynn Grochala / Floyd Snider												
Report To:	Boeing pm + Floyd Snider												
Invoice To:	<input checked="" type="checkbox"/> Boeing EHS <input type="checkbox"/> Other (specify):												
Samplers:	LMG				No. of Coolers:	(1)							
Sample ID	Date	Time	Matrix	No. of Containers									
BP2-2-49-SB12-3(4.45')	1/25/12	1355	Soil	1	X								
BP2-2-49-SB12-4(2.5-4')	1/25/12	1410	Soil	1	X								
BP2-2-49-SB12-4(4.5-5.5')	1/25/12	1415	Soil	1	X								
BP2-2-49-SB12-4(8.5-9')	1/25/12	1440	Soil	1	X								
BP2-2-49-SB12-4(9-9.5')	1/25/12	1450	Soil	1	X								
Additional Comments:	Part 2 of 2				Turn-Around-Time Requested (circle)	Standard	24-Hour	48-Hour	72-Hour	Relinquished by:	Date / Time	Received by:	Date / Time
					4-Day	5-Day				<i>Lynn</i>	1/25/12 1650		
					Other (Specify):					Relinquished by:	Date / Time	Received by:	Date / Time
					Temperature upon Receipt:	SID	°C	Relinquished by commercial carrier (circle):			Received by:	Date / Time	
					Custody Seals Intact?:	<input checked="" type="radio"/> Yes	No	UPS	Fed-Ex	Other:	<i>Lynn M</i>	1/26/12 0900	

Environmental Sample Administration

Receipt Documentation Log

Client/Project: BoeingShipping Container Sealed: YES NODate of Receipt: 1/26/12Custody Seal Present *: YES NOTime of Receipt: 0900

* Custody seal was intact unless otherwise noted in the discrepancy section

Source Code: SO-1Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2037	5.0° L	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

BP2-2-49-SB12-2 (S-6') and 1 extm jar for MS/MKD.Unpacker Signature/Emp#: Mary Hahn 2316 Date/Time: 1/26/12 1110

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		
U.S. EPA CLP Data Qualifiers:			
Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is <CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
Shoreline Area Data Report**

**Appendix B
Soil Boring Logs**

FINAL

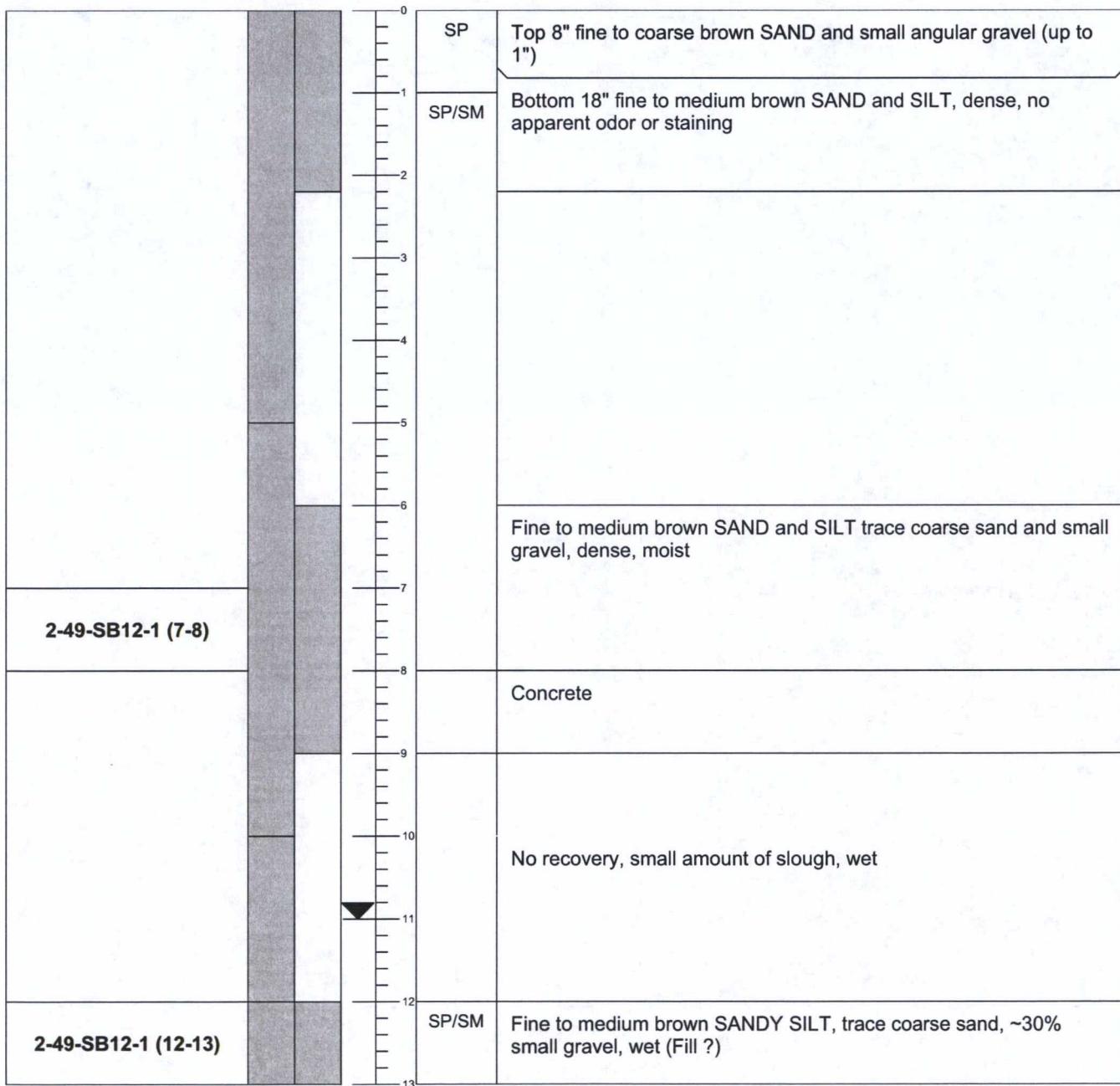
Coordinate System: NAD83
Ground Surface Elevation:
Latitude/Northing: 196090.0413
Longitude/Easting: 1275525.282
Boring Location: Shoreward of fireline vault

Drill Date: Jan. 25, 2012
Logged By: Lynn Grochala
Drilled By: Eli Floyd / Cascade Drilling
Drill Type: Direct Push Geoprobe
Sample Method: direct push 2"x5' core
Boring Diameter: 2 inches
Boring Depth (ft bgs): 13 ft
Groundwater ATD (ft bgs): 11 ft

Client: Boeing
Project: Boeing Plant 2
Task: PCB Investigation
Area: 2-49

Remarks: PID readings not taken

SAMPLE COLLECTION INFORMATION	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS
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Notes:

FT BGS = Feet Below Ground Surface

USCS = Unified Soil Classification System, modified from ASTM D2488 Page 1 of 1

▼ = denotes start of water saturated soil

Boring ID: 2-49-SB-12-2

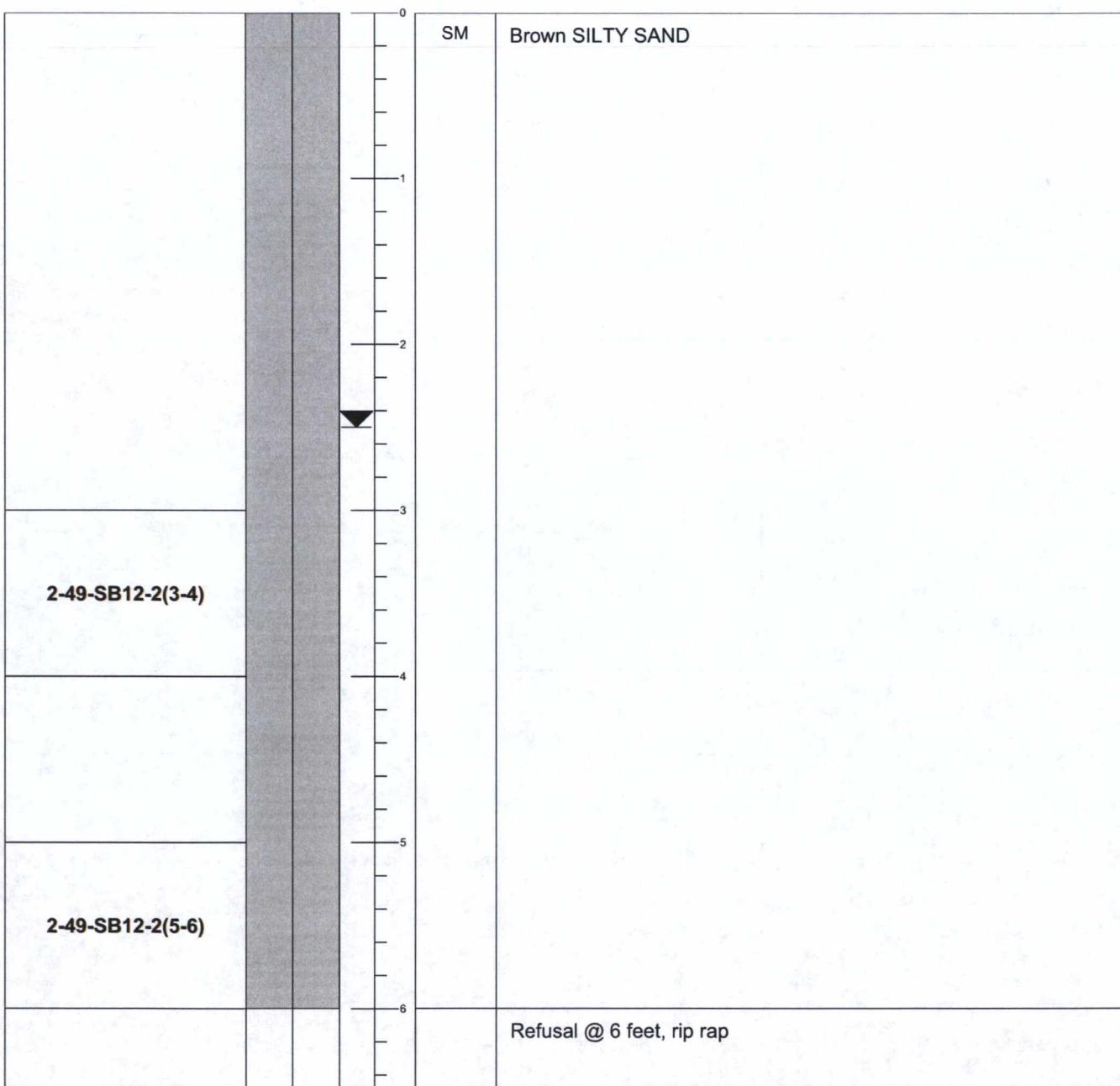
Coordinate System: NAD83
Ground Surface Elevation: NA
Latitude/Northing: 196111.5964
Longitude/Easting: 1275504.376
Boring Location:

Drill Date: January 25, 2012
Logged By: Lynn Grochala
Drilled By: Eli Floyd/Cascade Drilling
Drill Type: AMS Hand Auger Flight Kit
Sample Method: 1.5" sample core
Boring Diameter: 4-inch
Boring Depth (ft bgs): 6.0
Groundwater ATD (ft bgs): 2.5

Client: Boeing
Project: Boeing Plant 2
Task: PCB Investigation
Area: 2-49 Underbuilding

Remarks: Top of boring at mud line in underbuilding
 Hand drilled, logged from cuttings.

SAMPLE COLLECTION INFORMATION	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS



Notes:

FT BGS = Feet Below Ground Surface

USCS = Unified Soil Classification System, modified from ASTM D2488 Page 1 of 1

▀ = denotes start of water saturated soil

Boring ID: 2-49-SB12-3

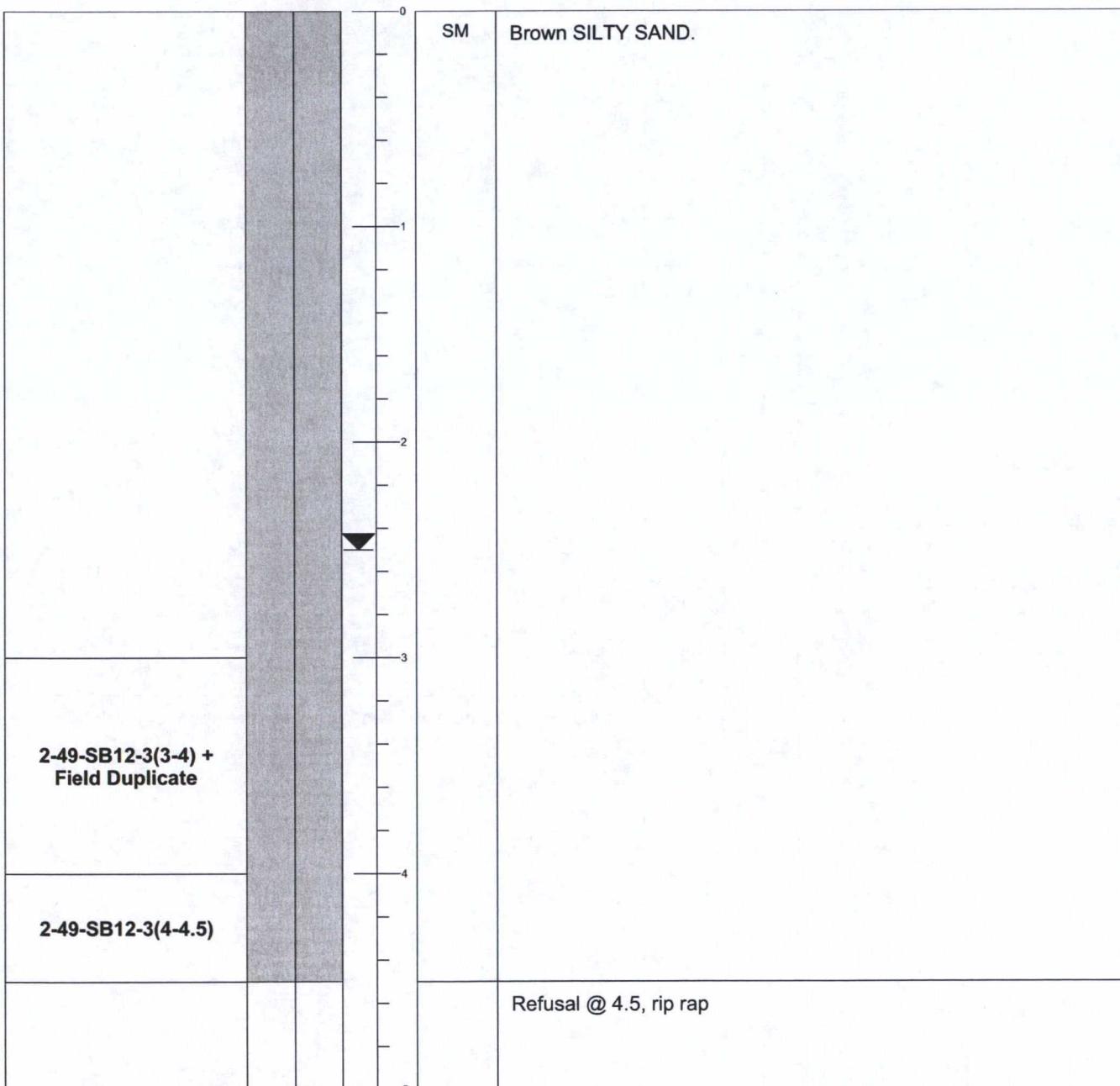
Coordinate System: NAD83
Ground Surface Elevation:
Latitude/Northing: 196120.5987
Longitude/Easting: 1275495.632
Boring Location:

Drill Date: January 25, 2012
Logged By: Lynn Grochala
Drilled By: Eli Floyd / Cascade Drilling
Drill Type: AMS Hand Auger Flight Kit
Sample Method: 1.5" Sample Core
Boring Diameter: 4-inches
Boring Depth (ft bgs): 4.5 ft
Groundwater ATD (ft bgs): 2.5

Client: Boeing
Project: Boeing Plant 2
Task: PCB Investigation
Area: 2-49 Underbuilding

Remarks: Top of boring at mud line in underbuilding. Boring in vicinity of Outfall 12 and Stretch Press Pit..
 Hand drilled, logged from cuttings.

SAMPLE COLLECTION INFORMATION	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS
-------------------------------	--------------------	--------------	-------------	-----------------------------------



Notes:

FT BGS = Feet Below Ground Surface

USCS = Unified Soil Classification System, modified from ASTM D2488 Page 1 of 1

▀ = denotes start of water saturated soil

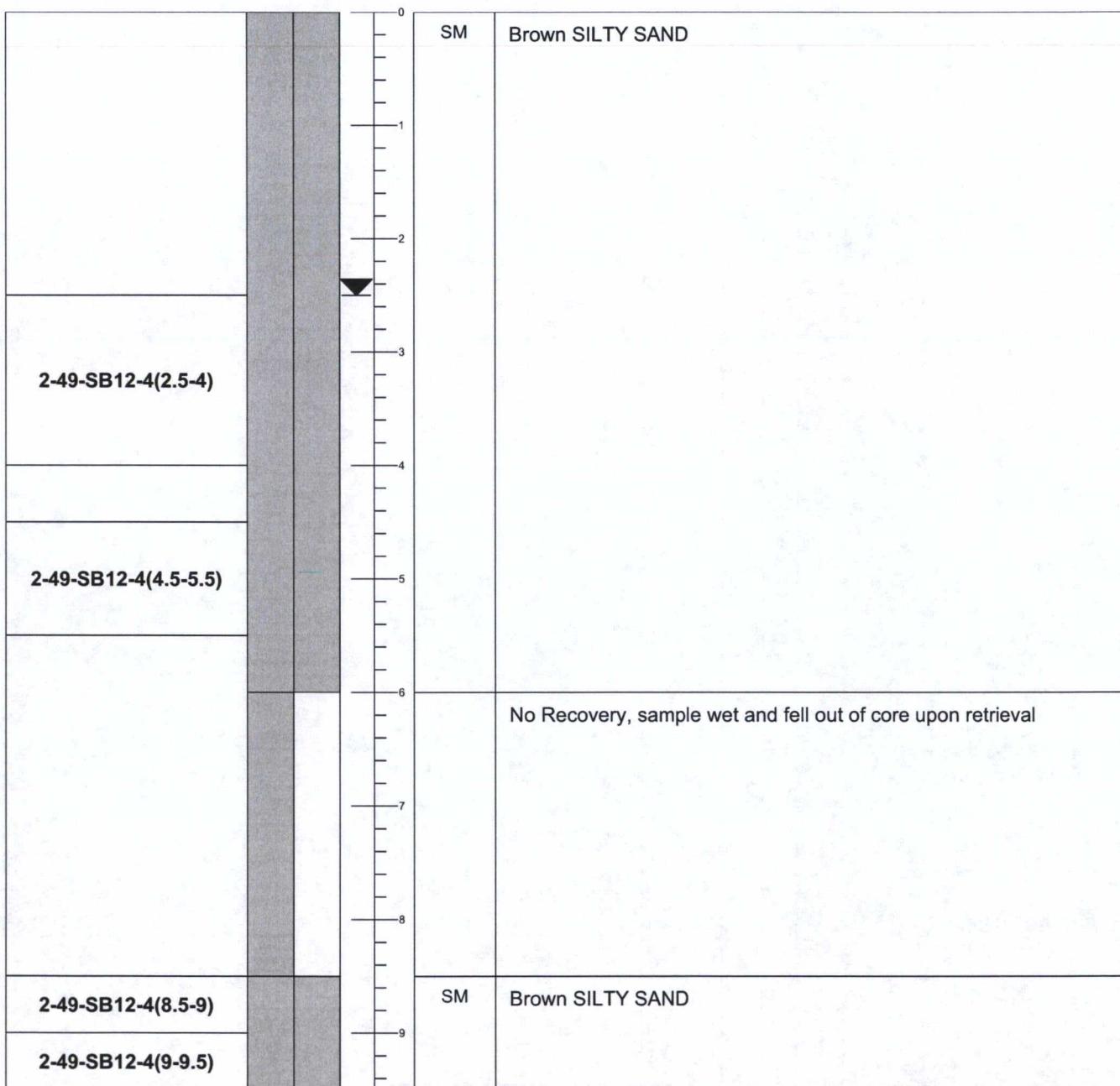
Coordinate System: NAD83
Ground Surface Elevation:
Latitude/Northing: 196128.4287
Longitude/Easting: 1275486.562
Boring Location:

Drill Date: January 25, 2012
Logged By: Lynn Grochala
Drilled By: Eli Floyd / Cascade Drilling
Drill Type: AMS Hand Auger Flight Kit
Sample Method: 1.5" Sample Core
Boring Diameter: 4-inches
Boring Depth (ft bgs): 9.5 ft
Groundwater ATD (ft bgs): 2.5

Client: Boeing
Project: Boeing Plant 2
Task: PCB Investigation
Area: 2-49 Underbuilding

Remarks: Top of boring at mud line in underbuilding. Boring in vicinity of Outfall 12 and Stretch Press Pit.
 Hand drilled, logged from cuttings.

SAMPLE COLLECTION INFORMATION	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS
-------------------------------	--------------------	--------------	-------------	-----------------------------------



Notes:

FT BGS = Feet Below Ground Surface

USCS = Unified Soil Classification System, modified from ASTM D2488 Page 1 of 1

▀ = denotes start of water saturated soil

Boring ID: SWB-SB12-1

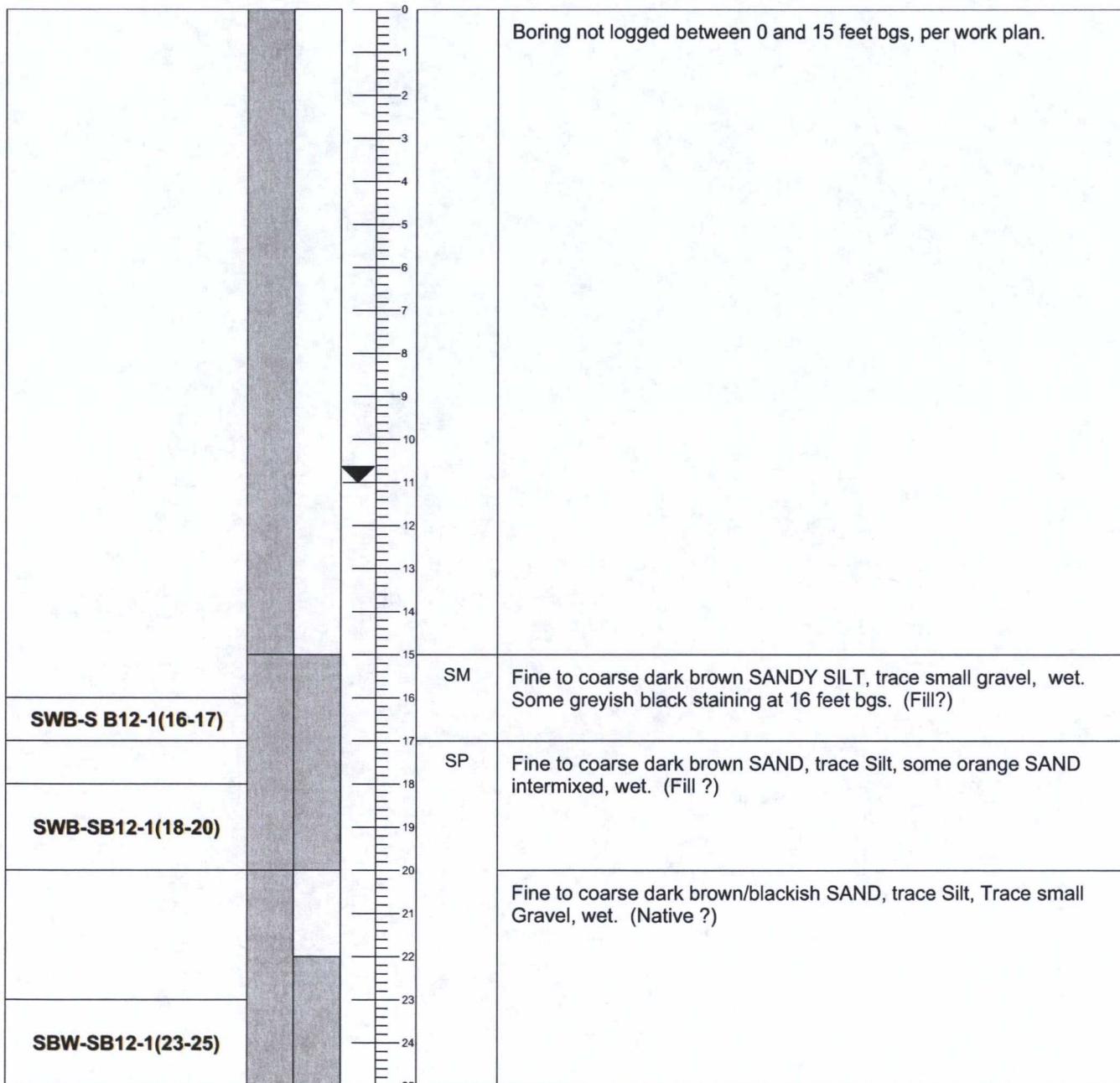
Coordinate System: NAD83
Ground Surface Elevation: NA
Latitude/Northing: 195932.356
Longitude/Easting: 1275630.224
Boring Location: see remarks

Drill Date: January 25, 2012
Logged By: Lynn Grochala
Drilled By: Eli Floyd/ Cascade Drilling
Drill Type: Direct Push Geoprobe
Sample Method: direct push 2"x5' core
Boring Diameter: 2 inches
Boring Depth (ft bgs): 25
Groundwater ATD (ft bgs): 11

Client: Boeing
Project: Boeing Plant 2
Task: PCB Investigation
Area: Southwest Bank

Remarks: Between Soil Borings 06633 and 06616
 PID readings not taken.

SAMPLE COLLECTION INFORMATION	DRIVEN / RECOVERED	DEPTH FT BGS	USCS SYMBOL	SOIL DESCRIPTION AND OBSERVATIONS
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Notes:

FT BGS = Feet Below Ground Surface

USCS = Unified Soil Classification System, modified from ASTM D2488 Page 1 of 1

▀ = denotes start of water saturated soil

**Boeing Plant 2
Seattle/Tukwila, Washington**

**PCB Investigation in the Southern
Shoreline Area Data Report**

**Appendix C
Data Validation**

FINAL



TECHNICAL MEMORANDUM

Date: 3/12/2012

Project No.: 013-1646--012.700.1201

To: Will Ernst

Company: The Boeing Company

From: Jill Lamberts, Golder Associates

Email: jill_lamberts@golder.com

cc: Lynn Grochala, Floyd|Snider,
Kent Angelos, Golder Associates Inc.

RE: BOEING PLANT 2 –2011 DEMOLITION EVALUATION – FIRE LINE VAULT

1.0 INTRODUCTION

A total of four soil samples were collected on December 2, 2011. This sampling was conducted as part of the 1994 Administrative Order of Consent between Boeing and EPA Region X and details are specified in the *Quality Assurance Project Plan and Attachment A – Sampling and Analysis Plan - Interim Measure Work Plan 2010/2011 Soil and Stormwater Management Plan, Demolition of Buildings 2-41, 2-44, and 2-49* (Golder 2010). The purpose of the soil and investigative-derived waste water sampling (dewatering wastewater and decontamination water) are to "document the removal and disposition of subsurface soils during the 2010/2011 demolition of buildings 2-41, 2-44, and 2-49" (Golder 2010). Samples were analyzed by Analytical Resources Incorporated (ARI) of Tukwila, Washington for the following parameters:

Samples were analyzed by Analytical Resources Incorporated (ARI) of Tukwila, Washington for Polychlorinated biphenyls (PCBs) by EPA Method 8082 GC/ECD.

Samples were analyzed in accordance with procedures described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (USEPA SW-846, 3rd edition) 8082 and ARI standard operating procedures*.

2.0 SAMPLE DELIVERY GROUPS, SAMPLES AND ANALYSES

Samples were analyzed and data were reported by the laboratory in batch numbers/sample delivery groups (SDGs) as summarized below:

TZ81 (PCBs):

BP2-Vault-Ns(3)

BP2-Vault-Nb(5.5)

BP2-Vault-Ws(3)

BP2-Vault-Wb(5.5)

Quality assurance/quality control (QA/QC) reviews of laboratory data were performed in the laboratory in accordance with the laboratory quality assurance program plan. The data validation QA/QC review focused primarily on laboratory result summary sheets and quality control summary sheets to ensure that work plan data quality objectives were met for the project. Data validation was conducted in accordance with the criteria outlined in the National Functional Guidelines (NFG) for Organic Data Review (EPA, 1999) and the National Functional Guidelines for Inorganic Data Review (EPA, 2004), modified to include method specific requirements of the laboratory analytical methods. Raw data sheets were reviewed as necessary to confirm conditions reported and to support application of qualifiers to analytical results.

The validation level specified in Golder's 2010 *Quality Assurance Project Plan and Attachment A – Sampling and Analysis Plan - Interim Measure Work Plan 2010/2011 Soil and Stormwater Management Plan, Demolition of Buildings 2-41, 2-44, and 2-49* (Golder, 2010) is Level 1 which is considered a basic

review. The following is a summary of quality control elements associated with each analytical fraction and the status of that element as a result of the data validation process.

3.0 SAMPLING, DOCUMENTATION AND REPORTING

Sample acknowledgements, chain-of-custody, request forms, and data package completeness were evaluated with the following noted:

- Review of the SAP (Golder, 2011) requested analytes indicates that two of the nine requested PCB Aroclors (Aroclor 1262 and Aroclor 1268) were not analyzed for several SDGs. Refer to the following section (Section 4.0) of this report for further information.
- SDG TZ81: Recorded cooler temperatures occasionally exceeded the recommended temperature ($4^{\circ}\text{C} \pm 2^{\circ}\text{C}$) for sample preservation. No action was taken since the samples are delivered to the laboratory on the same day as sample collection (most frequently within a few hours).
- Field duplicate samples were not collected and analyzed for PCBs, due to the nature of the field work, per the approved SAP (Golder, 2010).

4.0 POLYCHLORINATED BIPHENYLS

The laboratory provided a Level 1 data package for the PCB analyses. Items reviewed during validation are summarized below.

4.1 Analytical Methods – acceptable

Samples for PCB analysis were analyzed by GC/ECD using EPA SW846 Method 8082.

4.2 Sample Holding Times and Preservations – acceptable

All samples were extracted within 14 days (7 days for water) of sample collection for solids and analyzed within 40 days from the date of extraction.

4.3 Reporting – acceptable

No sampling, documentation and reporting discrepancies with the following discussion:

When necessary the laboratory performs dilutions, re-extractions, and/or re-analyses and reports multiple sample results on an analytical parameter. These data are considered useful however it should be noted that database results reflect ONLY one result for each sample. Decision criteria used to report these results in these cases are generally as follows:

- If the target analyte exceeds the calibration range, then the diluted result is selected;
- If a target analyte is detected in both sets of results, then the higher of the two concentrations is selected from the two results;
- If a target analyte is detected in one result, but not the other result, then the detection is selected;
- If the target analyte is not detected in either set of results, the lower reporting limit is selected.

It should be noted that there are some exceptions to the decision criteria listed above but in these cases the selected result will be clearly identified (and the reasons for doing so) for the data user.

4.4 Laboratory Reporting Limits

The laboratory achieved the RLs required by the SAP with the following exceptions:

- Seven Aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260) were reported instead of the nine which are listed on Table 3 of the SAP. Aroclors 1262 and 1268 were not reported. Golder indicates that samples were collected and analyzed for known or suspected constituents of concern (COCs) for characterization purposes and Aroclors 1262 and 1268 were not considered to be COCs for this sampling event. No action was taken other than to note this.
- The reporting limits were not met in cases in which the samples were analyzed at dilutions due to high concentrations of target compounds.

4.5 Instrument Calibration – acceptable

Case narrative notes indicate if various compounds did not meet calibration criteria. As raw data was not provided action was based on case narrative notes. No anomalies were noted by the lab regarding instrument calibration.

4.6 Blank Contamination – acceptable

The method and equipment blanks were free of contamination.

4.7 Surrogate Recovery – acceptable

ARI surrogate control limits for low level PCBs in soils are more stringent than the Table 4 of the SAP (Golder, 2011) stipulated control limits. ARI surrogate control limits for medium level PCBs in soils are broader than SAP stipulated control limits however review of sample surrogate recoveries indicates that all recoveries fall within the SAP stipulated range. All surrogates for low level PCBs in soils were within criteria.

4.8 Matrix Spike Analysis

In cases where MS/MSD analyses were not performed refer to LCS/LCSD results for a measure of precision and accuracy. MS/MSD was not performed for the SDG reviewed.

4.9 Laboratory Control Sample Recovery – acceptable

Table 4 of the SAP specifies PCB acceptance criteria for solids at 50-130% for recovery range. RPD criteria are not specified thus a default limit of 30% RPD was used. LCS/LCSD percent recoveries and RPDs were acceptable and within specified criteria.

5.0 DATA QUALIFIERS

Data qualifiers applied by the laboratory have been removed from the data summary report sheets and superseded by data validation qualifiers as follows:

The following qualifiers were used to modify the data quality and usefulness of individual analytical results.

- U – The constituent was analyzed for, but was not detected above the reported sample quantitation limit.
- J – The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.
- J+ – The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.

- J- – The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased low.
- UJ – The constituent was not detected; the associated quantitation limit is an estimated value because quality control criteria were not met.
- R – Data are rejected due to significant exceedance of quality control criteria. The analyte may or may not be present. Additional sampling and analysis may be required to determine the presence or absence of the constituent. For statistical reasons, rejected values are not included in the database.
- UR – The constituent is rejected at the reported quantitation limit.
- DNR - Do not report.
- UY – The reporting limit is elevated due to interference. The result is not detected.

6.0 DATA ASSESSMENT

Data review and validation was performed by an experienced quality assurance chemist independent of the analytical laboratory and not directly involved in the project. This is to certify that I have examined the analytical data and based on the information provided to me by the laboratory, in my professional judgment, the data are acceptable for use except where indicated by data qualifiers, which may modify the usefulness of those individual values.



Jill Lamberts
Staff Environmental Scientist, GAI

3/12/2012

Date



Kent Angelos
Principal Environmental Scientist, GAI

March 23, 2012

Date

7.0 REFERENCES

- EPA 1999, USEPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review, EPA-540/R-99/008. Washington, DC. October 1999.
- EPA 2004, USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review, EPA-540-R-04-004, October, 2004.
- Golder Associates Incorporated, 2010. *Quality Assurance Project Plan - Interim Measure Work Plan 2010/2011 Soil and Stormwater Management Plan, Demolition of Buildings 2-41, 2-44, and 2-49. Boeing Plant 2, Seattle/Tukwila, Washington.* Prepared by Golder Associates Incorporated, November, 2010.
- Golder Associates Incorporated, 2010. *Attachment A: Sampling and Analysis Plan - Interim Measure Work Plan 2010/2011 Soil and Stormwater Management Plan, Demolition of Buildings 2-41, 2-44, and 2-49. Boeing Plant 2, Seattle/Tukwila, Washington.* Prepared by Golder Associates Incorporated, November, 2010.

**Boeing Plant 2
Seattle/Tukwila, Washington**

**Data Validation Report
PCB Data Gap Investigation Sampling**

**Prepared for
Boeing**

**Prepared by
Floyd|Snider
601 Union Street
Suite 600
Seattle, Washington 98101**

March 30, 2012

FINAL

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List of Appendices

Appendix A Qualifier Codes

Appendix B PCB Result Chromatograms and Laboratory Standards

1.0 Project Narrative

1.1 OVERVIEW OF DATA VALIDATION

This report summarizes the results of the Compliance Screening (Level I) performed on the soil sample data for the Polychlorinated Biphenyl (PCB) Data Gap Investigation Sampling Event. A complete list of samples is provided below.

Project Sample Index

SDG (Batch)	Sample ID	Lab ID	USEPA Method 8082
1286762	BP2-2-49-SB12-1(7-8')	6532790	X
1286762	BP2-2-49-SB12-1(12-13')	6532791	X
1286762	BP2-SWB-SB12-1(16-17')	6532792	X
1286762	BP2-SWB-SB12-1(18-20')	6532793	X
1286762	BP2-SWB-SB12-1(23-25')	6532794	X
1286762	BP2-2-49-SB12-2(3-4')	6532795	X
1286762	BP2-2-49-SB12-2(5-6')	6532796	X
1286762	BP2-2-49-SB12-3(3-4')	6532799	X
1286762	Field Duplicate	6532800	X
1286762	BP2-2-49-SB12-3(4-4.5')	6532801	X
1286762	BP2-2-49-SB12-4(2.5-4')	6532802	X
1286762	BP2-2-49-SB12-4(4.5-5.5')	6532803	X
1286762	BP2-2-49-SB12-4(8.5-9')	6532804	X
1286762	BP2-2-49-SB12-4(9-9.5')	6532805	X
1286762	BP2-2-49-SB12-1(7-8')	6532790	X
1286762	BP2-2-49-SB12-1(12-13')	6532791	X
1286762	BP2-SWB-SB12-1(16-17')	6532792	X

Abbreviations:

- SDG Sample delivery group
- USEPA U.S. Environmental Protection Agency

The chemical analyses were performed by Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania. A total of 14 soil samples were collected on January 25, 2012 and submitted to Lancaster for chemical analyses of PCBs by U.S. Environmental Protection Agency (USEPA) Method 8082.

The data were reviewed using guidance and quality control criteria documented in the analytical methods and *National Functional Guidelines for Organic Data Review* (USEPA 1999 and 2008).

Floyd|Snider's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes, but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. When compounds are analyzed at multiple dilutions, select results will be assigned a Do Not Report (DNR) qualification as a more appropriate result is reported from another dilution. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

Data qualifier definitions are included as Appendix A. As no data were qualified for this data set, the standard Qualified Data Summary Table was not populated, and has not been included as an attachment. Data validation worksheets (excel worksheets) will be kept on file at Floyd|Snider.

2.0 Data Validation Report PCBs by USEPA Method 8082

This report documents the review of analytical data from the analyses of soil samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Lancaster. Compliance Screening (Level I) was performed on all analytical results by Chell Black, as the primary data reviewer, and secondary review was performed by Jessi Massingale. In addition, the comparison of result chromatograms to laboratory-provided standards was performed by Emily Santee, with review by Dr. Teri Floyd.

2.1 DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

2.2 TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

QC Requirements

Cooler temperature and preservation	Laboratory control sample (LCS)
Extraction and analysis holding times	Matrix spike (MS) and MS Duplicate (MSD)
Blank contamination	Reporting limits and reported results
¹ Surrogate recoveries	¹ PCB standard spectral match

Note:

1 Quality control results are discussed below, but no data were qualified.

QC requirements that were met without exception are not discussed below. QC requirements that required further evaluation and had exceptions to the validation criteria are discussed below.

2.2.1 Surrogate Recoveries

The surrogate recovery for decachlorobiphenyl was outside of laboratory standards (53-133 percent) for three samples, as follows: BP-2-49-SB12-4(4.5-5.5') 140 percent, BP-2-49-SB12-4(8.5-9') 137 percent, and BP2-2-49-SB12-4(9-9.5') 145percent. All three samples have recoveries within the USEPA Guideline of 30–150 percent. Therefore, it is with professional judgment that no results be qualified based on this surrogate recovery information.

2.2.2 PCB Standard Spectral Match

Each sample result chromatogram was compared to the laboratory provided standards, and the Aroclor identification was confirmed for each result. Chromatograms were provided for the

following standards: Aroclor 1242, Aroclor 1248, Aroclor 1254, and Aroclor 1260/1016¹. The sample result chromatograms and the laboratory standards are included in Appendix B.

2.3 OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the MS, MSD and LCS recoveries. Precision was acceptable, as demonstrated by the MS/MSD relative percent differences (RPDs).

All data, as reported by the lab, are acceptable for use.

¹ The standard provided by Lancaster was labeled "Aroclor 1260." It has been confirmed by the laboratory that the Aroclor standard used to assess and identify Aroclor 1260 is a combined standard that contains both Aroclor 1260 and 1016.

**Boeing Plant 2
Seattle/Tukwila, Washington**

**Data Validation Report
PCB Data Gap Investigation Sampling**

**Appendix A
Data Qualifier Definitions and
Criteria Tables**

FINAL

DATA VALIDATION QUALIFIER CODES

National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
 - N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
 - NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
 - UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
 - R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is a Floyd|Snider qualifier that may also be assigned during the data review process:

- DNR Do not report; a more appropriate result is reported from another analysis or dilution.

**Boeing Plant 2
Seattle/Tukwila, Washington**

**Data Validation Report
PCB Data Gap Investigation Sampling**

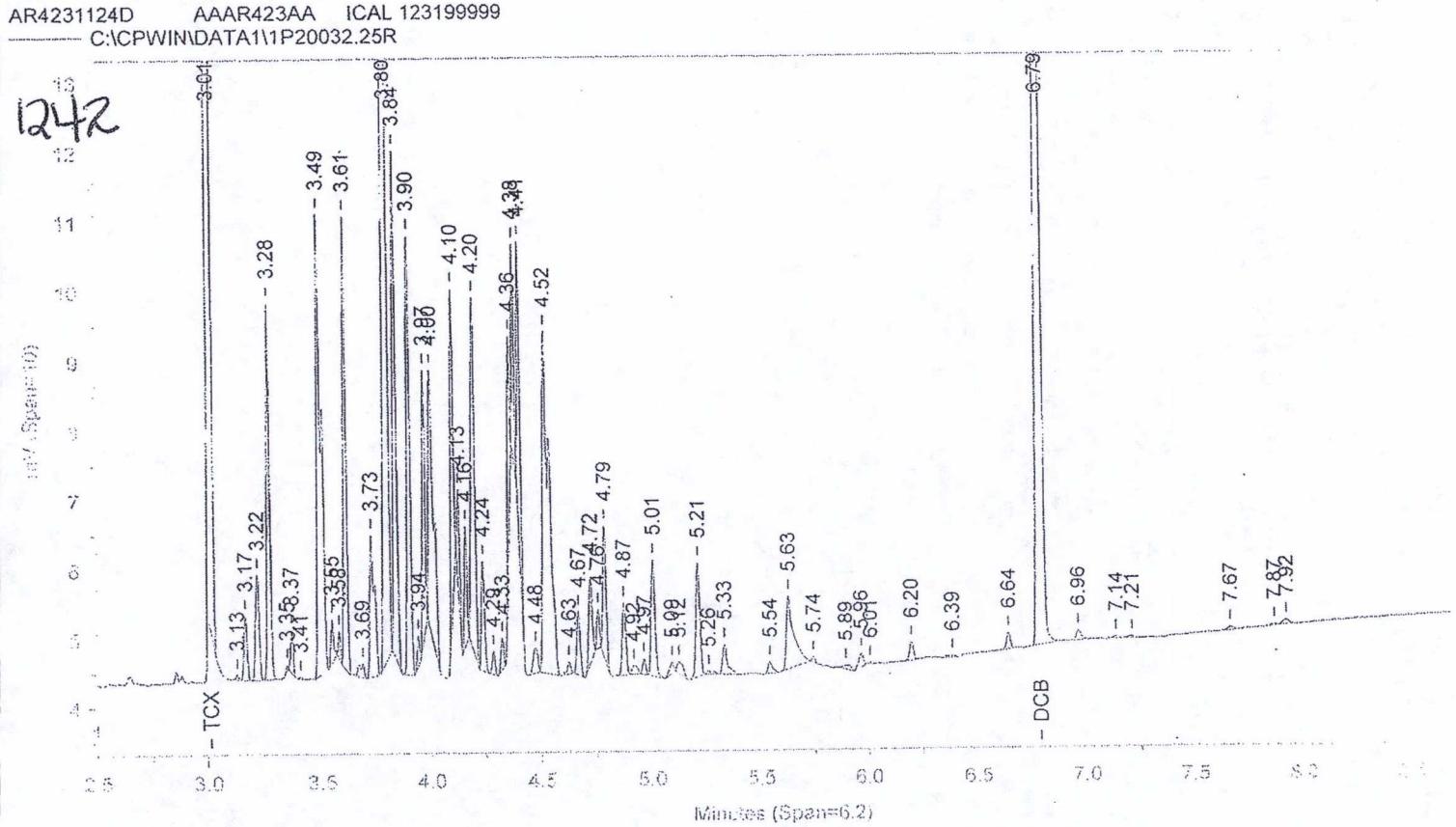
**Appendix B
PCB Result Chromatogram and
Laboratory Standards**

FINAL

AR4231124D AAAR423AA ICAL 123199999

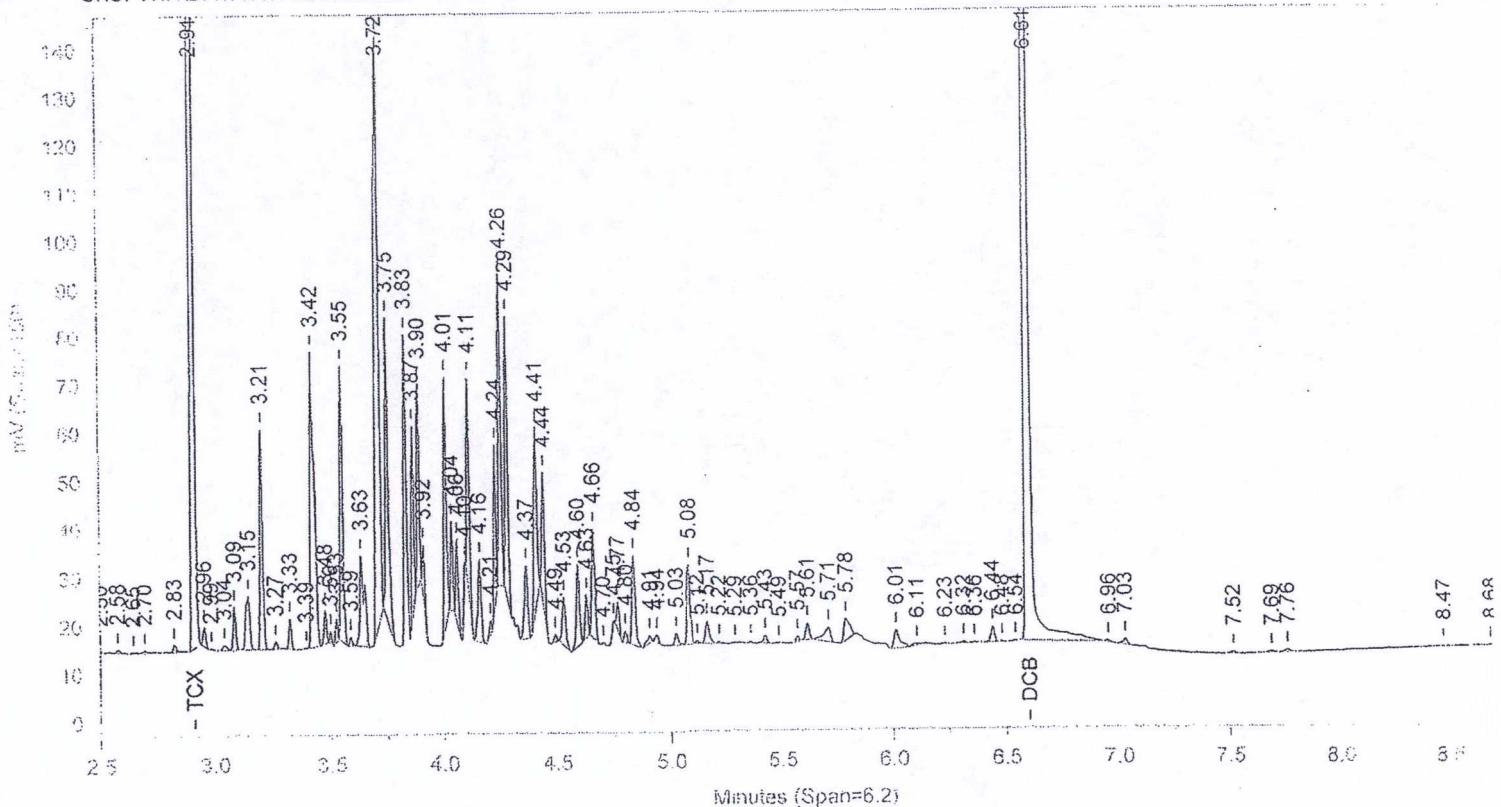
LANCASTER LABORATORIES

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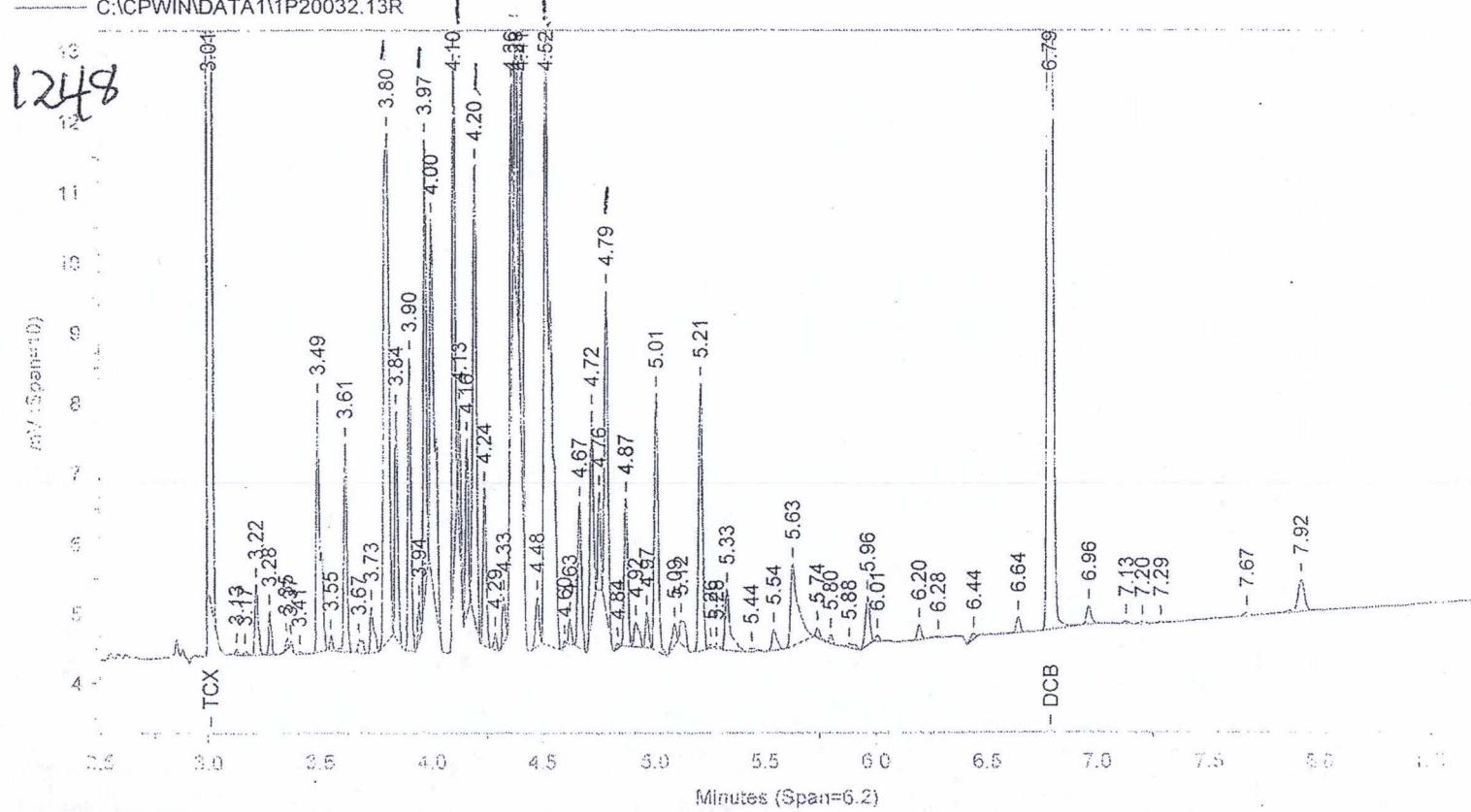
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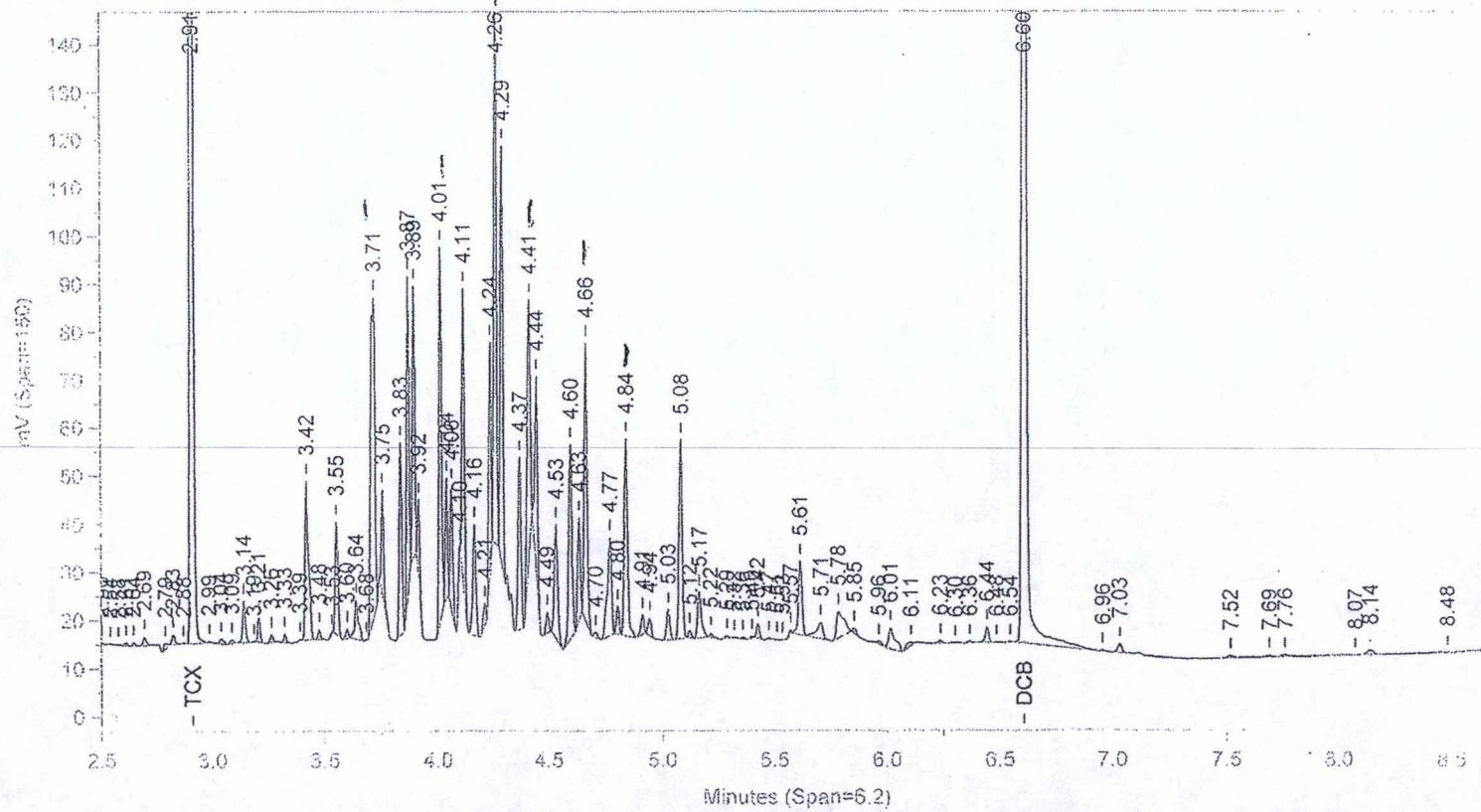


LANCASTER LABORATORIES

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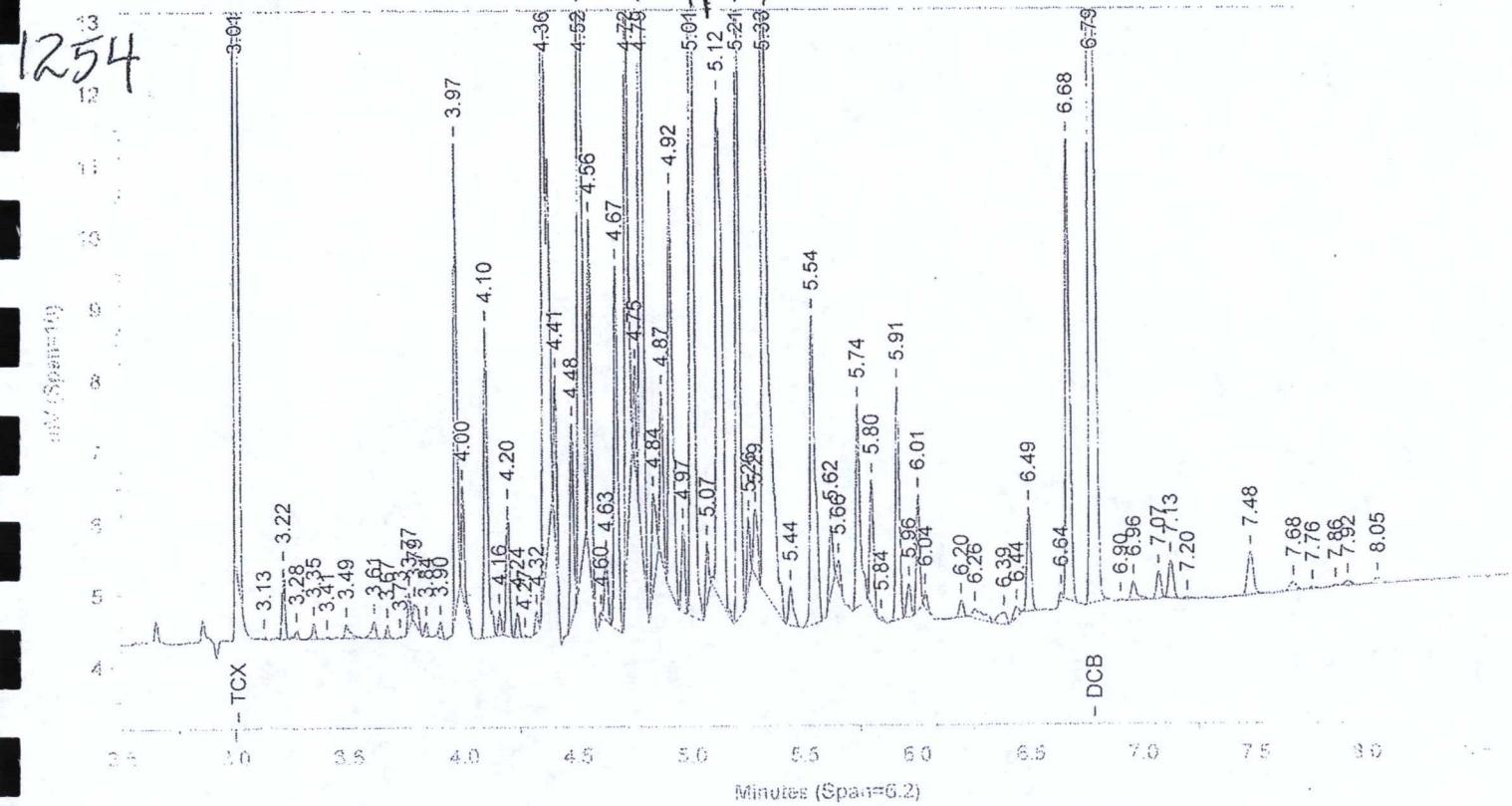


AR5431124B AAAR543AA ICAL 123199999

LANCASTER LABORATORIES

AR5431124B AAAR543AA ICAL 123199999
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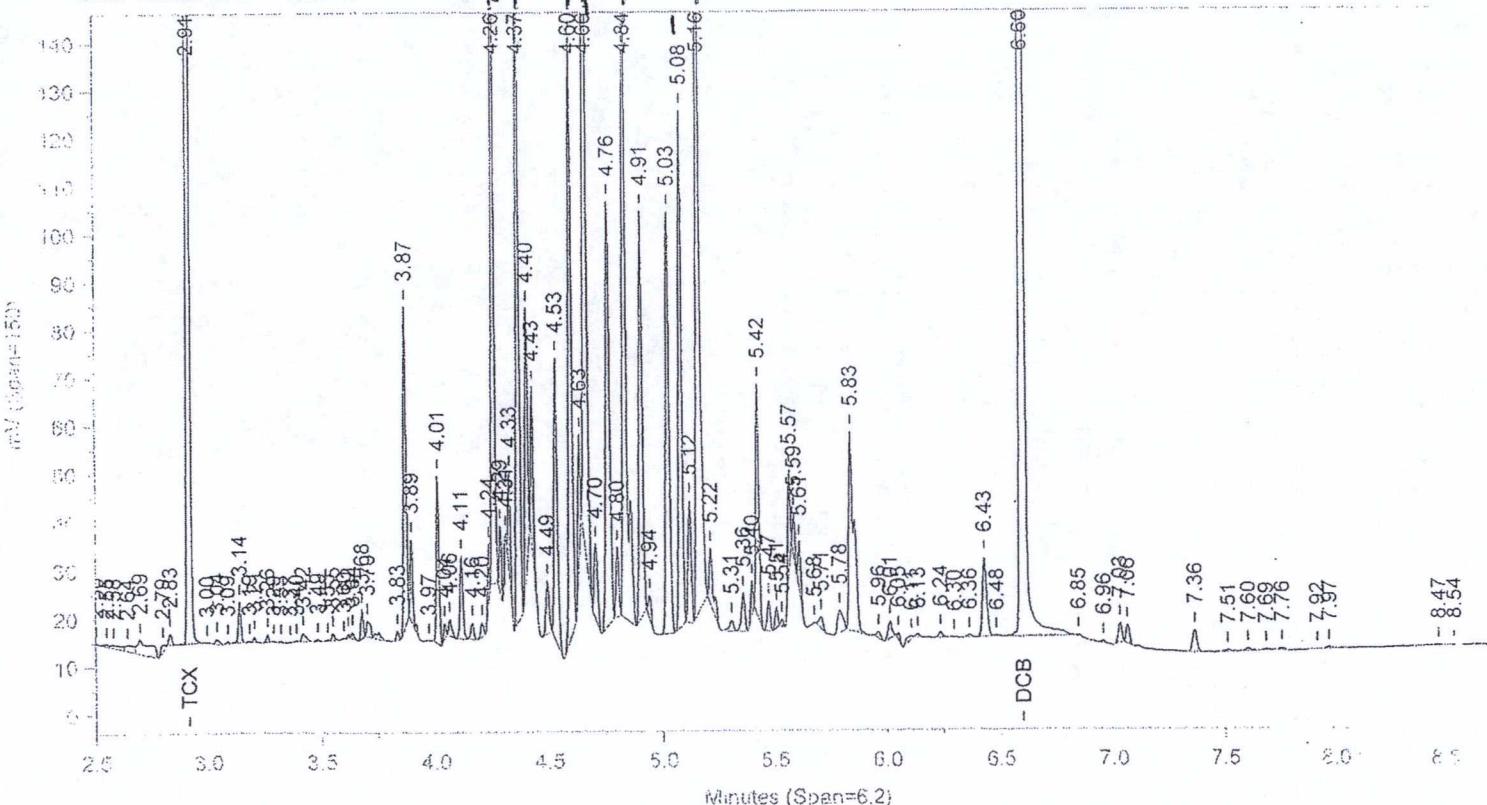
File: C:\CPWIN\DATA1\IP20032.18R



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Column ID: ZB MULTIRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.18R

AR5431124B AAAR543AA ICAL 123199999
C:\CPWIN\DATA1\IP20032B.18R

Instrument ID: CP08--17342B Injected On: 2/2/2012 2:38:46 AM

Column ID: ZB MULTIRES2 30M X .32MM X 0.25UM

AR1631124B

AAAR163AA ICAL 123199999

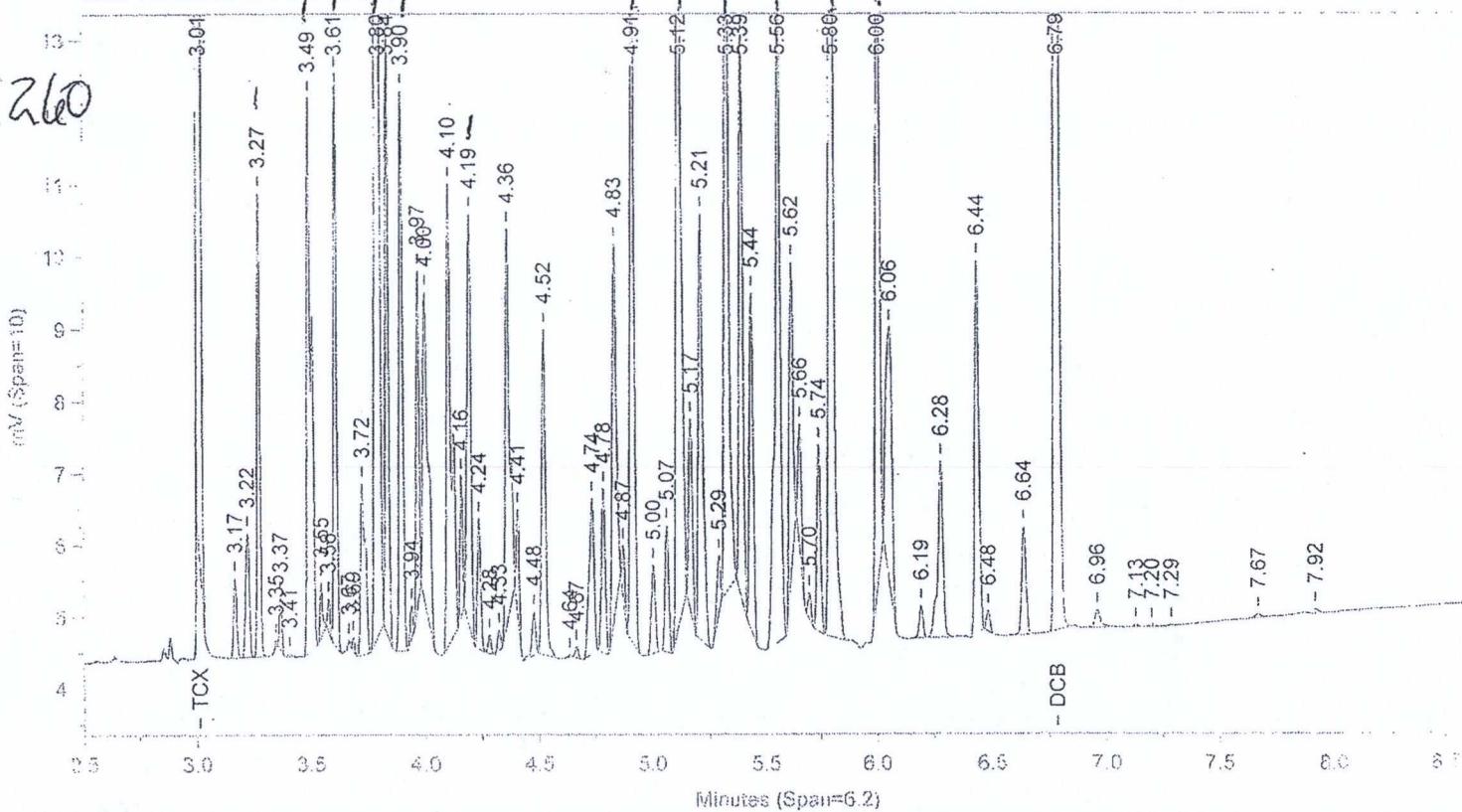
Page

LANCASTER LABORATORIES

AR1631124B AAAR163AA ICAL 123199999
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[260]

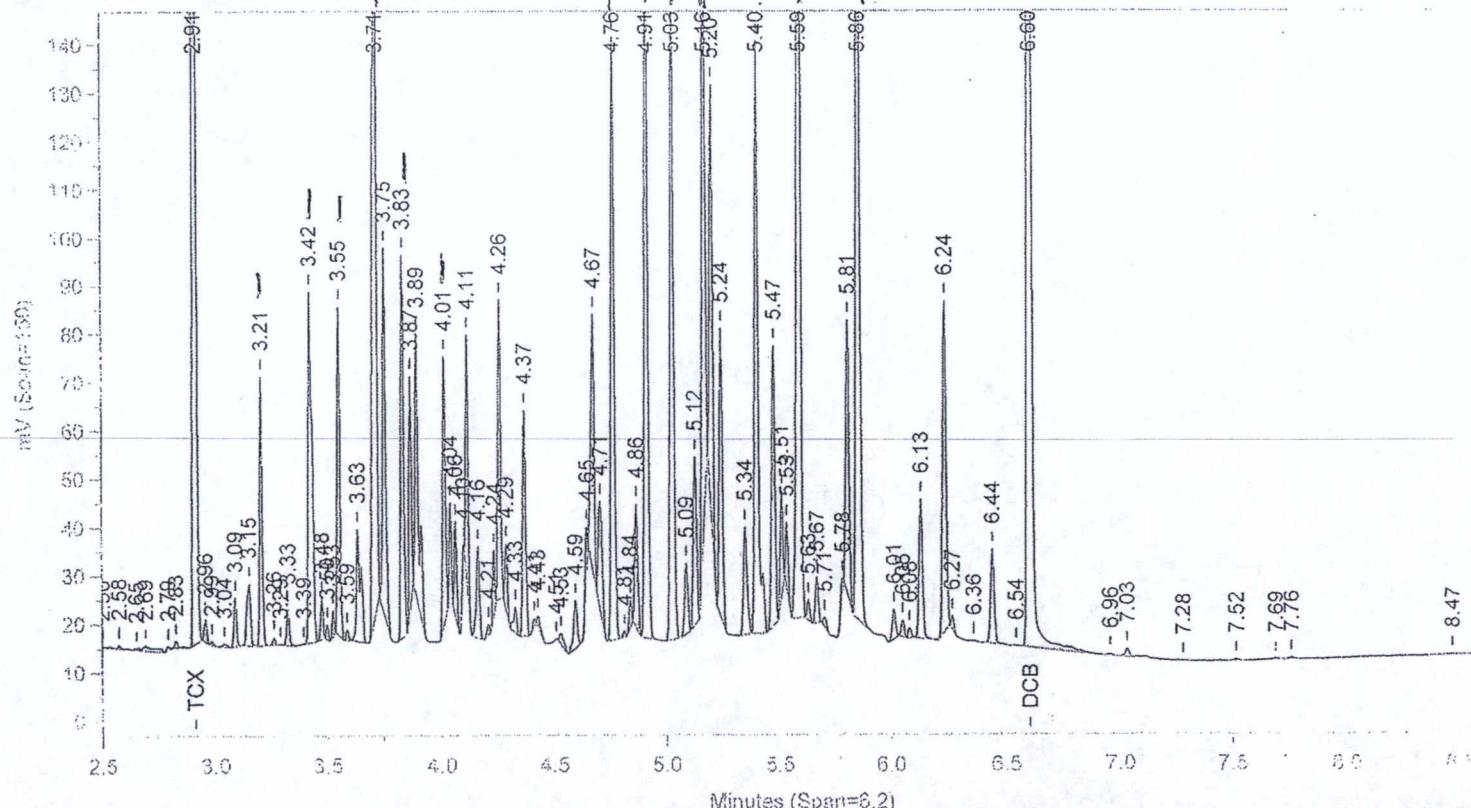


Instrument ID: CP08--17342A Injected On: 2/2/2012 12:44:11 AM

Column ID: ZB MULTIRE 30M X .32MM X .5UM

AR1631124B AAAR163AA ICAL 123199999
C:\CPWIN\DATA1\1P20032B.08R

File: C:\CPWIN\DATA1\1P20032B.08R



Instrument ID: CP08--17342B Injected On: 2/2/2012 12:44:11 AM

Column ID: ZB MULTIRE 2 30M X .32MM X .025UM

Multiple Component Data Summary

Sample Name: 6532790 ACF 49107 Sample ID: AB Batchnumber: 12031008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 11:38:01
 Instrument 17342A
 Result file 1P20032.65R
 Calibration file 1P20032
 Method file PESTD
 %SSR(TCX) 98.6% Conc: 10.17524
 %SSR(DCB) 117.0% Conc: 11.70193

Min	RT	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260						38.91	
4.88	4.91	4.94	8458.027344	54.450586	1		
5.09	5.12	5.15	9569.080078	53.530021	2		
5.30	5.33	5.36	15765.897461	80.280395	3		
5.53	5.56	5.59	13379.423828	98.669627	4		
5.77	5.80	5.83	35865.203125	125.474056	5		
5.98	6.01	6.04	22142.107422	138.889563	6		
Height summation:			105179.739258			Height summation:	1133590.976563
Concentration	CF:		91.882375	L:		Concentration	CF: 70.953973

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248			<17	<3.3			4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260	A	91.882375	17	3.9		25.70	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: MAR

Verified by: Melissa A McDermott

Date: 2/12/12

Date: FEB 06 2012

Melissa A. McDermott
Senior Chemist

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532790 ACF 49107 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342A
 Result file : 1P20032.65R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET
 %SSR(TCX) : 98.6% (53-139) Conc.: 10.175246
 %SSR(DCB) : 117% (53-133) Conc.: 11.701933

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	85.46		
Aroclor-1016							
3.24	3.26	3.30	156.162506	1.616258	1		
3.46	3.49	3.52	254.804459	2.203055	2	+ 3.18	3.24
3.58	3.61	3.64	201.280197	1.710851	3	+ 3.39	3.39
+ 3.77	3.77	3.83	101.171135	0.446976	4	3.39	3.42
3.77	3.80	3.83	261.231964	1.154128	4	+ 3.52	3.53
3.87	3.90	3.93	285.549652	2.447045	5	3.52	3.57
4.16	4.20	4.22	619.90332	7.531727	6	3.69	3.71

Height Summation: 1778.932098

Amount Avg CF: 2.777177 Linear:

Aroclor-1221 2 123.10

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.20	3.22	3.26	732.788818	16.001503	2		
3.25	3.26	3.31	156.162506	1.108125	3		

Height Summation: 888.951324

Amount Avg CF: 8.554814 Linear:

Aroclor-1232 6 94.04

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.25	3.26	3.31	156.162506	1.229142	4		
3.46	3.49	3.52	254.804459	4.111075	1		
3.58	3.61	3.64	201.280197	3.167771	2		
3.77	3.80	3.83	261.231964	2.190349	3		
3.87	3.90	3.93	285.549652	4.63517	5		
4.17	4.20	4.23	619.90332	13.849493	6		

Height Summation: 1778.932098

Amount Avg CF: 4.863833 Linear:

Aroclor-1242 6 78.66

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.25	3.26	3.31	156.162506	1.895981	1		
3.47	3.49	3.53	254.804459	2.504713	2		
3.58	3.61	3.64	201.280197	2.034058	3		
3.77	3.80	3.83	261.231964	1.400069	4		
3.87	3.90	3.93	285.549652	2.950045	5		
4.17	4.20	4.23	619.90332	8.071658	6		

Height Summation: 1778.932098

Amount Avg CF: 3.142754 Linear:

Aroclor-1248 6 116.30

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.77	3.80	3.83	261.231964	2.36356	1		
3.94	3.97	4.00	894.21759	9.552994	2	+ 3.18	3.24
+ 3.94	4.00	4.00	488.210205	5.215587	2	3.39	3.42
4.07	4.10	4.13	766.134094	6.913095	3	+ 3.52	3.53
4.17	4.20	4.23	619.90332	6.20453	4	3.52	3.57
4.49	4.52	4.55	1606.540039	12.233315	5	3.69	3.71
4.76	4.79	4.82	3243.980713	46.280962	6	+ 3.69	3.74

Height Summation: 7392.007720

Amount Avg CF: 13.924743 Linear:

Aroclor-1254 6 102.85

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
4.49	4.52	4.55	1606.540039	9.595122	1		
4.76	4.79	4.82	3243.980713	15.773406	2		
4.98	5.01	5.04	1757.667603	11.254979	3		
5.09	5.12	5.15	9569.080078	111.970139	4		
5.18	5.21	5.24	3318.807129	26.281295	5		
5.30	5.33	5.36	15765.897461	99.920128	6		

Height Summation: 35261.973023

Amount Avg CF: 45.799178 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342B
 Result file : 1P20032B.65R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET
 %SSR(TCX) : 99.3% (53-139) Conc.: 10.241345
 %SSR(DCB) : 108.9% (53-133) Conc.: 10.887486

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	101.72		
Aroclor-1016							
3.18	3.21	3.24	230.407394	0.279409	1		
+ 3.18	3.24	3.24	8053.836426	9.766665	1		
+ 3.39	3.39	3.45	365.439056	0.341017	2		
3.39	3.42	3.45	1926.670654	1.79791	2		
+ 3.52	3.53	3.58	322.193848	0.315547	3		
3.52	3.57	3.58	2439.915527	2.389582	3		
3.69	3.71	3.75	1512.823853	0.680158	4		
+ 3.69	3.74	3.75	802.770325	0.360922	4		
3.80	3.84	3.86	2495.84375	2.088482	5		
3.98	4.01	4.04	6243.185059	7.010355	6		
+ 3.98	4.04	4.04	2671.052979	2.999275	6		

Height Summation: 14848.846237
 Amount Avg CF: 2.374316 Linear:

Aroclor-1221 3 143.22

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.06	3.08	3.12	1109.746216	2.188395	1		
3.12	3.14	3.18	6506.211426	17.654257	2		
3.18	3.21	3.24	230.407394	0.183613	3		
+ 3.18	3.24	3.24	8053.836426	6.418141	3		

Height Summation: 7846.365036
 Amount Avg CF: 6.675422 Linear:

Aroclor-1232 6 107.92

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.18	3.21	3.24	230.407394	0.202669	1		
+ 3.18	3.24	3.24	8053.836426	7.08425	1		
3.39	3.42	3.45	1926.670654	3.391369	2		
+ 3.52	3.53	3.58	322.193848	0.611345	3		
3.52	3.57	3.58	2439.915527	4.629601	3		
3.69	3.71	3.75	1512.823853	1.310638	4		
+ 3.69	3.74	3.75	802.770325	0.695482	4		
3.80	3.84	3.86	2495.84375	4.099174	5		
3.98	4.01	4.04	6243.185059	14.327447	6		
+ 3.98	4.04	4.04	2671.052979	6.129783	6		

Height Summation: 14848.846237
 Amount Avg CF: 4.66015 Linear:

Aroclor-1242 6 99.80

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
3.18	3.21	3.24	230.407394	0.325538	1		
+ 3.18	3.24	3.24	8053.836426	11.379091	1		
3.39	3.42	3.45	1926.670654	2.090333	2		
+ 3.52	3.53	3.58	322.193848	0.368717	3		
3.52	3.57	3.58	2439.915527	2.792224	3		
3.69	3.71	3.75	1512.823853	0.809553	4		
+ 3.69	3.74	3.75	802.770325	0.429584	4		
3.81	3.84	3.87	2495.84375	2.513704	5		
3.98	4.01	4.04	6243.185059	8.017652	6		
+ 3.98	4.04	4.04	2671.052979	3.430232	6		

Height Summation: 14848.846237
 Amount Avg CF: 2.758167 Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:24:04

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532790 ACF

49107

Sample ID: AB

Batchnumber: 120310008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342A
 Result file : 1P20032.65R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Min R.T. Max Height

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260					54.450586	6	38.91	1
E 4.88	4.91	4.94	8458.027344		53.530021	2		
E 5.09	5.12	5.15	9569.080078		80.280395	3		
E 5.30	5.33	5.36	15765.897461		98.669627	4		
E 5.53	5.56	5.59	13379.423828		125.474056	5		
E 5.77	5.80	5.83	35865.203125		138.889563	6		
E 5.98	6.01	6.04	22142.107422					

Height Summation: 105179.739258

Amount Avg CF: 91.882375

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					68.042535	1		
E 4.88	4.91	4.94	8458.027344		67.671441	2		
E 5.09	5.12	5.15	9569.080078		84.820718	3		
E 5.37	5.39	5.43	14884.763672		110.838751	4		
E 5.77	5.80	5.83	35865.203125		113.996486	5		
E 5.98	6.01	6.04	22142.107422		113.0164	6		
E 6.41	6.44	6.47	13217.833008					

Height Summation: 104137.844649

Amount Avg CF: 93.064389

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					62.761075	1		
5.97	6.01	6.03	22142.107422		35.441612	2		
6.03	6.06	6.09	10533.601563		9.087973	3		
6.17	6.20	6.23	2395.271729		68.982458	4		
E 6.23	6.28	6.29	5287.505371		103.913782	5		
E 6.41	6.44	6.47	13217.833008		11.924102	6		
E 6.61	6.64	6.67	8701.077148					

Height Summation: 62277.396241

Amount Avg CF: 48.685167

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342B
 Result file : 1P20032B.65R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Min R.T. Max Height

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1248					1512.823853	1		
3.68	3.71	3.74			802.770325	2		
+ 3.68	3.74	3.74			6243.185059	3		
3.98	4.01	4.04			2671.052979	4		
+ 3.98	4.04	4.04			2053.729492	5		
4.23	4.23	4.29			14870.692383	6		
4.23	4.26	4.29			3697.266602	7		
+ 4.23	4.29	4.29			7862.022949	8		
4.38	4.41	4.44			2042.579834	9		
+ 4.63	4.65	4.69			25910.701172	10		
4.63	4.67	4.69			8329.47168	11		
4.81	4.84	4.87			24590.917969	12		
+ 4.81	4.86	4.87			66782.626588	13		

Height Summation:

Amount Avg CF:

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1254					12070.688477	1		
4.34	4.37	4.40			8361.172852	2		
4.57	4.60	4.63			2042.579834	3		
+ 4.63	4.65	4.69			25910.701172	4		
4.63	4.67	4.69			2229.421143	5		
+ 4.81	4.81	4.87			8329.47168	6		
4.81	4.84	4.87			24590.917969	7		
4.81	4.86	4.87			20896.304688	8		
5.05	5.09	5.11			127997.85937	9		
5.14	5.16	5.20			228157.116213	10		

Height Summation:

Amount Avg CF:

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260					83542.546875	1		
4.73	4.76	4.79			96481.53125	2		
4.88	4.91	4.94			79901.039063	3		
5.00	5.03	5.06			127997.85937	4		
5.13	5.16	5.19			422157.8125	5		
5.56	5.59	5.62			323510.1875	6		
5.83	5.86	5.89			111.358949	7		

Height Summation:

Amount Avg CF:

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					96481.53125	1		
4.88	5.03	5.06			79901.039063	2		
5.17	5.20	5.23			145989.32812	3		
5.37	5.40	5.43			150546.60937	4		
E 5.56	5.59	5.62			422157.8125	5		
E 5.83	5.86	5.89			323510.1875	6		

Height Summation:

Amount Avg CF:

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					137342.78125	1		
5.78	5.81	5.84			323510.1875	2		
5.83	5.86	5.89			23669.191406	3		
5.98	6.01	6.04			3917.184814	4		
+ 6.05	6.05	6.11			9044.02832	5		
6.05	6.08	6.11			164013.79687	6		
E 6.21	6.24	6.27			116710.20312	7		
6.41	6.44	6.47			774290.188476	8		

Height Summation:

Amount Avg CF:

Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Dated 02/02/2012 11:38:01

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532790 ACF 49107 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342A
 Result file : 1P20032.65R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Analysis Report (B)

Injected on : FEB 02, 2012 11:38:01
 Instrument : CP08-17342B
 Result file : 1P20032B.65R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			17	3.3		15.64	4	40	
Aroclor-1221			17	3.3		24.68	3	40	
Aroclor-1232			17	3.3		4.28	4	40	
Aroclor-1242			17	3.3		13.03	4	40	
Aroclor-1248			17	3.3		34.75	4	40	
Aroclor-1254			17	3.3		** 90.23	4	40	
Aroclor-1260			17	3.9		25.70	4	40	
Aroclor-1262			0	0	E	29.88	4	40	
Aroclor-1268			0	0	E	** 41.33	4	40	
Total PCBs			0	0					

Units: ug/kg

* Peak found within more than one window

+Duplicate Peak in window - not included in average

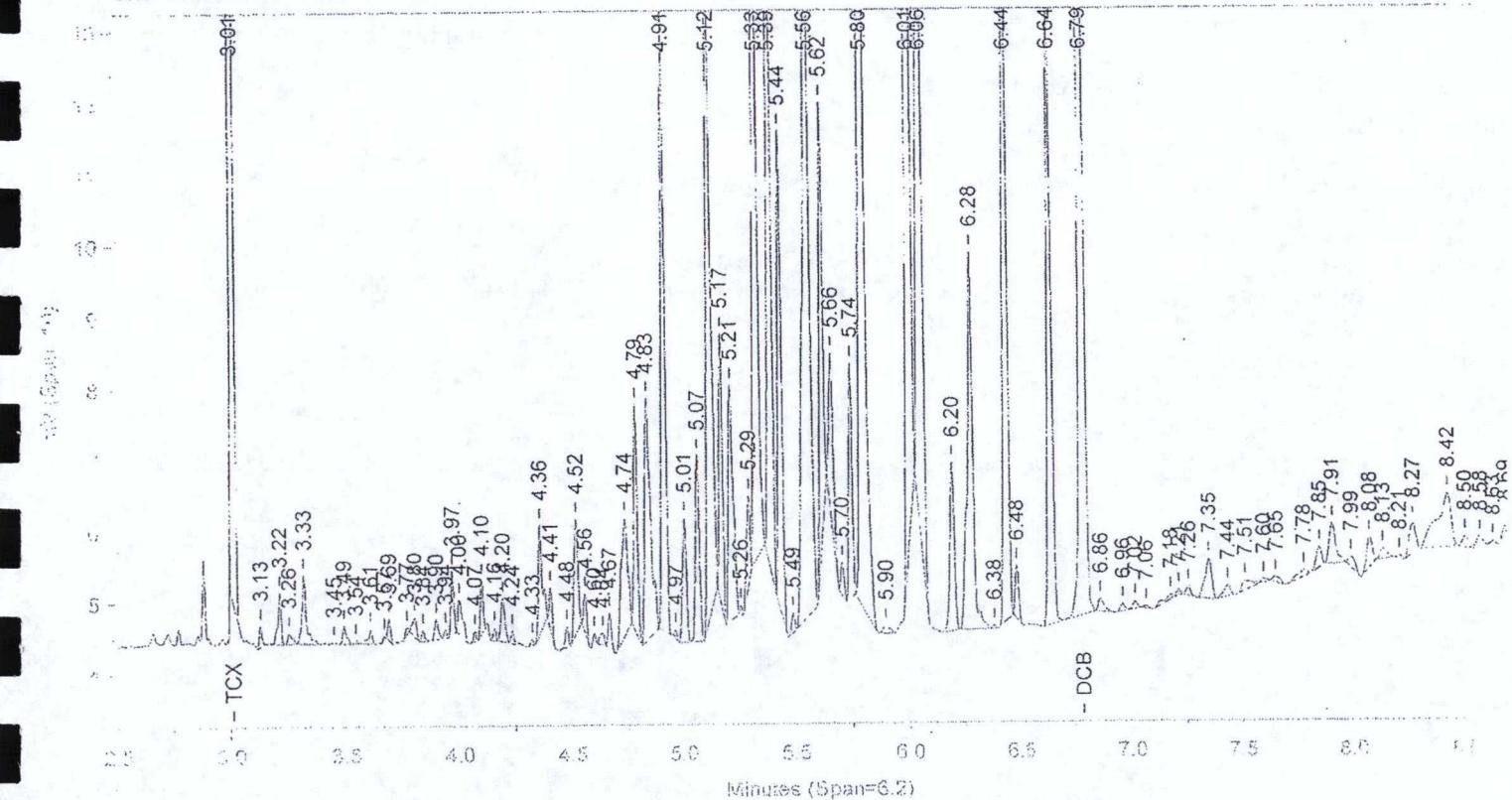
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6532790ACF AB49107 T 120310008A 01216

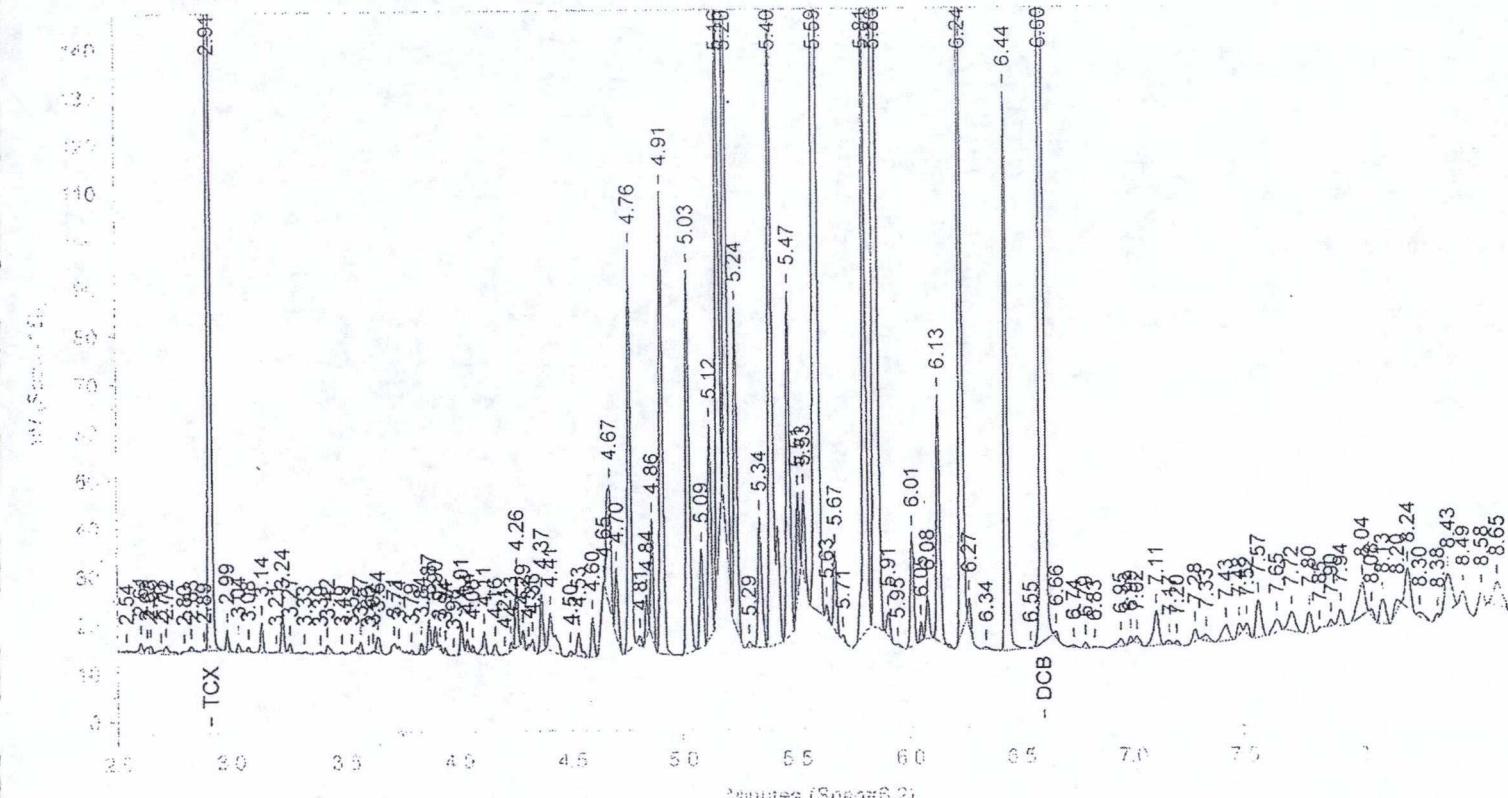
LANCASTER LABORATORIES

6532790ACF AB49107 T 120310008A 01216
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File: C:\CPWIN\DATA1\IP20032.65R

6532790ACF AB49107 T 120310008A 01216
C:\CPWIN\DATA1\IP20032B.65R

File: C:\CPWIN\DATA1\IP20032B.65R



Multiple Component Data Summary

Sample Name: 6532791 ACF 49112 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 11:49:26
 Instrument 17342A
 Result file 1P20032.B66R
 Calibration file 1P20032
 Method file PESTD

%SSR(TCX) 96.0% Conc: 9.906634
 %SSR(DCB) 113.0% Conc: 11.30374,

Min	RT	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260							
4.88	4.91	4.94	15528.400391	99.967814	1		
5.09	5.12	5.15	20185.367188	112.918182	2		
5.30	5.33	5.36	23270.037109	118.491686	3		
5.53	5.56	5.59	17594.605469	129.75545	4		
5.77	5.80	5.83	43729.265625	152.986401	5		
5.98	6.01	6.04	23747.402344	148.959007	6		
Height summation:			144055.078126			Height summation:	1645674.21875
Concentration			CF: 127.179757	L:		Concentration CF: 107.854313	L:

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248			<17	<3.3			4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260	A	127.179757	17	3.9		16.44	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: M.A. McDermott

Verified by: _____

Date: 2/8/12

Date: _____

FEB 06 2012

Melissa A. McDermott
Senior Chemist

Melissa A. McDermott

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532791 ACF 49112 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:49:26

Instrument : CP08-17342A

Result file : 1P20032.66R

Calibration file : 1P20032.CAL

Method file : PESTD.MET

%SSR(TCX) : 96% (53-139)

%SSR(DCB) : 113% (53-133)

Min R.T. Max Height

Aroclor-1016

3.24 3.26 3.30 114.620316

3.46 3.49 3.52 1142.694702

+ 3.58 3.58 3.64 65.754097

3.58 3.61 3.64 841.080994

3.77 3.80 3.83 2908.494385

3.87 3.90 3.93 1361.606567

4.16 4.20 4.22 1289.876587

Conc.: 9.906634

Conc.: 11.303745

Amount	Pks	%RSD	Peak
6	52.07		

Min	R.T.	Max	Height
1	1.186303		
2	9.879809		
3	0.5589		
3	7.149058		
4	12.849783		
5	11.66842		
6	15.671796		

Height Summation: 7658.373551

Amount Avg CF: 9.734195

Linear:

2	126.83	
2	14.955547	
3	0.813343	

Height Summation: 58733.305114

Amount Avg CF: 7.670055

Linear:

3	146.93	
3	837.553528	
2	6344.978516	
3	396.873962	
3	7328.355957	

Height Summation: 58733.305114

Amount Avg CF: 6.394889

Linear:

6	55.05	
4	0.902167	
1	18.436507	
2	13.237032	
3	24.386822	
5	22.102209	
6	28.817618	

Height Summation: 7579.406006

Amount Avg CF: 6.394889

Linear:

6	55.88	
3	396.873962	
1	7328.355957	
1	311.414581	
2	8515.338867	
3	408.836578	
3	6852.455566	
4	21353.029297	
5	10451.922852	
6	11163.68457	
6	4231.499512	

Height Summation: 58733.305114

Amount Avg CF: 14.937514

Linear:

7	99.05	
1	1.391614	
2	11.232623	
3	8.499631	
4	15.58804	
5	14.06691	
6	16.795268	

Height Summation: 18764.798218

Amount Avg CF: 28.843011

Linear:

7	99.05	
1	26.31531	
2	1.574262	
2	15.200517	
2	11.027597	
3	12.186147	
3	3.115164	
4	12.910204	
5	33.49458	
6	90.76672	

Height Summation: 58733.305114

Amount Avg CF: 8.98855

Linear:

6	52.02	
3	396.873962	
1	7328.355957	
1	311.414581	
2	8515.338867	
2	311.414581	
2	9.238681	
3	408.836578	
3	6852.455566	
4	21353.029297	
5	10451.922852	
6	11163.68457	
6	4231.499512	

Height Summation: 58733.305114

Amount Avg CF: 8.98855

Linear:

6	93.57	
1	26.271259	
2	30.934973	
3	29.513598	
4	236.193904	
5	74.60761	
6	147.4794	

Height Summation: 68246.753418

Amount Avg CF: 90.833457

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 11:49:26

Instrument : CP08-17342B

Result file : 1P20032B.66R

Calibration file : 1P20032B.CAL

Method file : PESTDB.MET

%SSR(TCX) : 92.5% (53-139)

%SSR(DCB) : 103.6% (53-133)

Conc.: 9.538466

Conc.: 10.359516

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
6				6	52.55		

Aroclor-1016

3.18 3.21 3.24 396.873962 0.481278 1

+ 3.18 3.23 3.24 7328.355957 8.886895 1

+ 3.39 3.39 3.45 311.414581 0.290603 2

3.39 3.42 3.45 8515.338867 7.946254 2

+ 3.52 3.53 3.58 408.836578 0.400403 3

3.52 3.55 3.58 6852.455566 6.711094 3

3.69 3.71 3.75 21353.029297 9.600215 4

3.80 3.83 3.86 10451.922852 8.746 5

3.98 4.01 4.04 11163.68457 12.535491 6

+ 3.98 4.04 4.04 4231.499512 4.751471 6

Height Summation: 58733.305114

Amount Avg CF: 7.670055

Linear:

Aroclor-1221

3.06 3.08 3.12 837.553528 1.651637 1

3.12 3.14 3.18 6344.978516 17.21676 2

3.18 3.21 3.24 396.873962 0.316271 3

+ 3.18 3.23 3.24 7328.355957 5.840002 3

Height Summation: 58733.305114

Amount Avg CF: 6.394889

Linear:

Aroclor-1232

3.18 3.21 3.24 396.873962 0.349095 1

+ 3.18 3.23 3.24 7328.355957 6.446109 1

+ 3.39 3.39 3.45 311.414581 0.548159 2

3.39 3.42 3.45 8515.338867 14.988891 2

+ 3.52 3.53 3.58 408.836578 0.775744 3

3.52 3.55 3.58 6852.455566 13.002145 3

3.69 3.71 3.75 21353.029297 18.499243 4

3.80 3.83 3.86 10451.922852 17.16624 5

3.98 4.01 4.04 11163.68457 25.619471 6

+ 3.98 4.04 4.04 4231.499512 9.710842 6

Height Summation: 58733.305114

Amount Avg CF: 14.937514

Linear:

Aroclor-1242

3.18 3.21 3.24 396.873962 0.560735 1

+ 3.18 3.23 3.24 7328.355957 10.354076 1

+ 3.39 3.39 3.45 311.414581 0.337868 2

3.39 3.42 3.45 8515.338867 9.238681 2

+ 3.52 3.53 3.58 408.836578 0.46787 3

3.52 3.55 3.58 6852.455566 7.841908 3

3.69 3.71 3.75 21353.029297 11.426584 4

3.81 3.83 3.87 10451.922852 10.526715 5

3.98 4.01 4.04 11163.68457 14.336678 6

+ 3.98 4.04 4.04 4231.499512 5.434196 6

Height Summation: 58733.305114

Amount Avg CF: 8.98855

Linear:

Aroclor-1254

4.49 4.52 4.55 4398.675781 26.271259 1

4.76 4.79 4.82 6362.129883 30.934973 2

4.98 5.01 5.04 4609.07959 29.513598 3

5.09 5.12 5.15 20185.367188 236.193904 4

5.18 5.21 5.24 9421.463867 74.60761 5

5.30 5.33 5.36 23270.037109 147.4794 6

Height Summation: 68246.753418

Amount Avg CF: 90.833457

Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532791 ACF 49112 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:49:26
 Instrument : CP08-17342A
 Result file : 1P20032.B66R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260					6	16.37	
4.88	4.91	4.94	15528.400391	99.967814	1		
5.09	5.12	5.15	20185.367188	112.918182	2		
5.30	5.33	5.36	23270.037109	118.491686	3		
5.53	5.56	5.59	17594.605469	129.75545	4		
5.77	5.80	5.83	43729.265625	152.986401	5		
5.98	6.01	6.04	23747.402344	148.959007	6		

Height Summation: 144055.078126
 Amount Avg CF: 127.179757

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					6	12.67	
E 4.88	4.91	4.94	15528.400391	124.921768	1		
E 5.09	5.12	5.15	20185.367188	142.74861	2		
E 5.37	5.39	5.43	17625.224609	100.437215	3		
E 5.77	5.80	5.83	43729.265625	135.142053	4		
E 5.98	6.01	6.04	23747.402344	122.261191	5		
E 6.41	6.44	6.47	12915.049805	110.427513	6		

Height Summation: 133730.709962
 Amount Avg CF: 122.656392

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					6	79.10	
E 5.97	6.01	6.03	23747.402344	67.311231	1		
6.03	6.06	6.09	10440.181641	35.127289	2		
6.17	6.20	6.23	1683.275635	6.386567	3		
E 6.23	6.28	6.29	5545.302734	72.345763	4		
E 6.41	6.44	6.47	12915.049805	101.53341	5		
6.61	6.64	6.67	5742.873535	7.87013	6		

Height Summation: 60074.085694
 Amount Avg CF: 48.429065

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 11:49:26
 Instrument : CP08-17342B
 Result file : 1P20032.B66R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1248					7	96.86	
3.68	3.71	3.74	21353.029297	21.173503	1		
3.98	4.01	4.04	11163.68457	9.216815	2		
+ 3.98	4.04	4.04	4231.499512	3.493555	2		
4.23	4.24	4.29	3877.093506	2.148741	3		
4.23	4.26	4.29	33585.40625	18.613514	3		
+ 4.23	4.29	4.29	9383.422852	5.200428	3		
4.38	4.41	4.44	11878.423828	14.115975	4		
+ 4.38	4.43	4.44	2753.317139	3.271962	4		
4.63	4.67	4.69	66587.203125	77.095559	5		
4.81	4.84	4.87	28778.205078	45.736055	6		

Height Summation: 177223.045654

Amount Avg CF: 26.871452

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1254					6	96.35	
4.34	4.37	4.40	37686.621094	21.394541	1		
4.57	4.60	4.63	20467.337891	13.607021	2		
4.63	4.67	4.69	66587.203125	26.764505	3		
4.81	4.84	4.87	28778.205078	15.754308	4		
+ 4.81	4.86	4.87	31202.613281	17.081523	4		
5.05	5.08	5.11	36053.308594	26.977912	5		
5.14	5.16	5.20	198308.84375	100.342802	6		

Height Summation: 387881.519532

Amount Avg CF: 34.140182

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260					6	22.92	
4.73	4.76	4.79	159573.875	87.954789	1		
4.88	4.91	4.94	211730.70312	92.622307	2		
5.00	5.03	5.06	164532.73437	89.383201	3		
5.13	5.16	5.19	198308.84375	98.91863	4		
5.56	5.59	5.62	546724.375	144.217755	5		
5.83	5.86	5.89	364803.6875	134.029193	6		

Height Summation: 1645674.218750

Amount Avg CF: 107.854313

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					6	19.06	
E 4.88	4.91	4.94	211730.70312	120.608917	1		
E 5.00	5.03	5.06	164532.73437	94.521967	2		
E 5.17	5.20	5.23	169132.76562	74.244829	3		
E 5.37	5.40	5.43	190927.20312	80.225694	4		
E 5.56	5.59	5.62	546724.375	112.835672	5		
E 5.83	5.86	5.89	364803.6875	110.370281	6		

Height Summation: 1647851.468750

Amount Avg CF: 98.801227

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					6	111.00	
5.78	5.81	5.84	124997.01562	22.506534	1		
5.83	5.86	5.89	364803.6875	66.439864	2		
5.98	6.01	6.04	16323.537109	3.75021	3		
+ 6.05	6.05	6.11	4766.080078	4.367242	4		
6.05	6.08	6.11	5992.332031	5.490878	4		
E 6.21	6.24	6.27	148396.26562	78.529008	5		
6.41	6.44	6.47	74412.171875	5.027832	6		

Height Summation: 734925.009765

Amount Avg CF: 30.290721

Linear:

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			17	3.3		23.72	4	40	
Aroclor-1221			17	3.3		20.86	3	40	

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Printed on: 2/12/20 20:24:18

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532791 ACF 49112 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses:01216

Analysis Report (A)

Injected on : FEB 02, 2012 11:49:26
 Instrument : CP08--17342A
 Result file : 1P20032.66R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1232			17	3.3		18.49	4	40	
Aroclor-1242			17	3.3		22.46	4	40	
Aroclor-1248			17	3.3		7.08	4	40	
Aroclor-1254			17	3.3		** 90.73	4	40	
Aroclor-1260			17	3.9		16.44	4	40	
Aroclor-1262			0	0	E	21.54	4	40	
Aroclor-1268			0	0	E	** 46.08	4	40	
Total PCBs			0	0					
Units: ug/kg									

Analysis Report (B)

Injected on : FEB 02, 2012 11:49:26
 Instrument : CP08--17342B
 Result file : 1P20032B.66R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:24:18

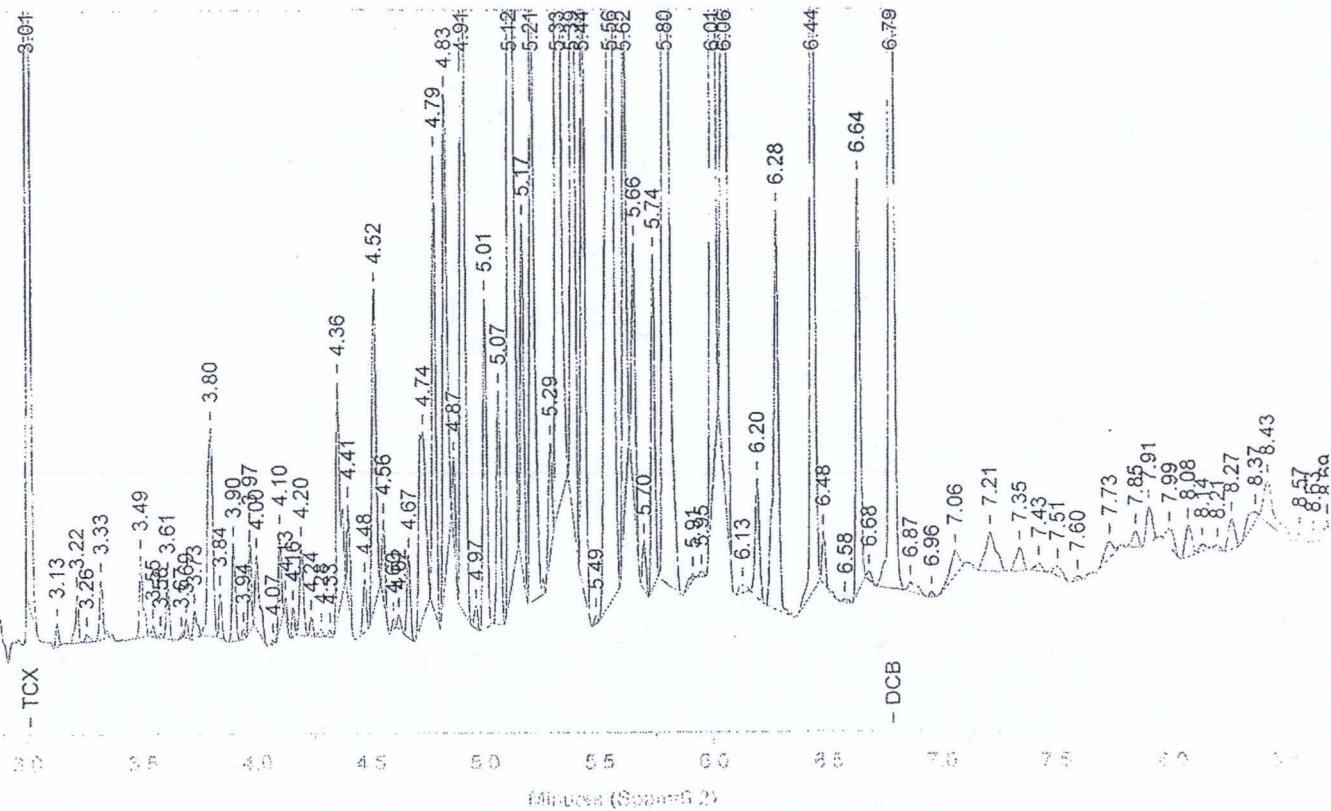
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Page 1

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File: C:\CPWIN\DATA1\IP20032.66R

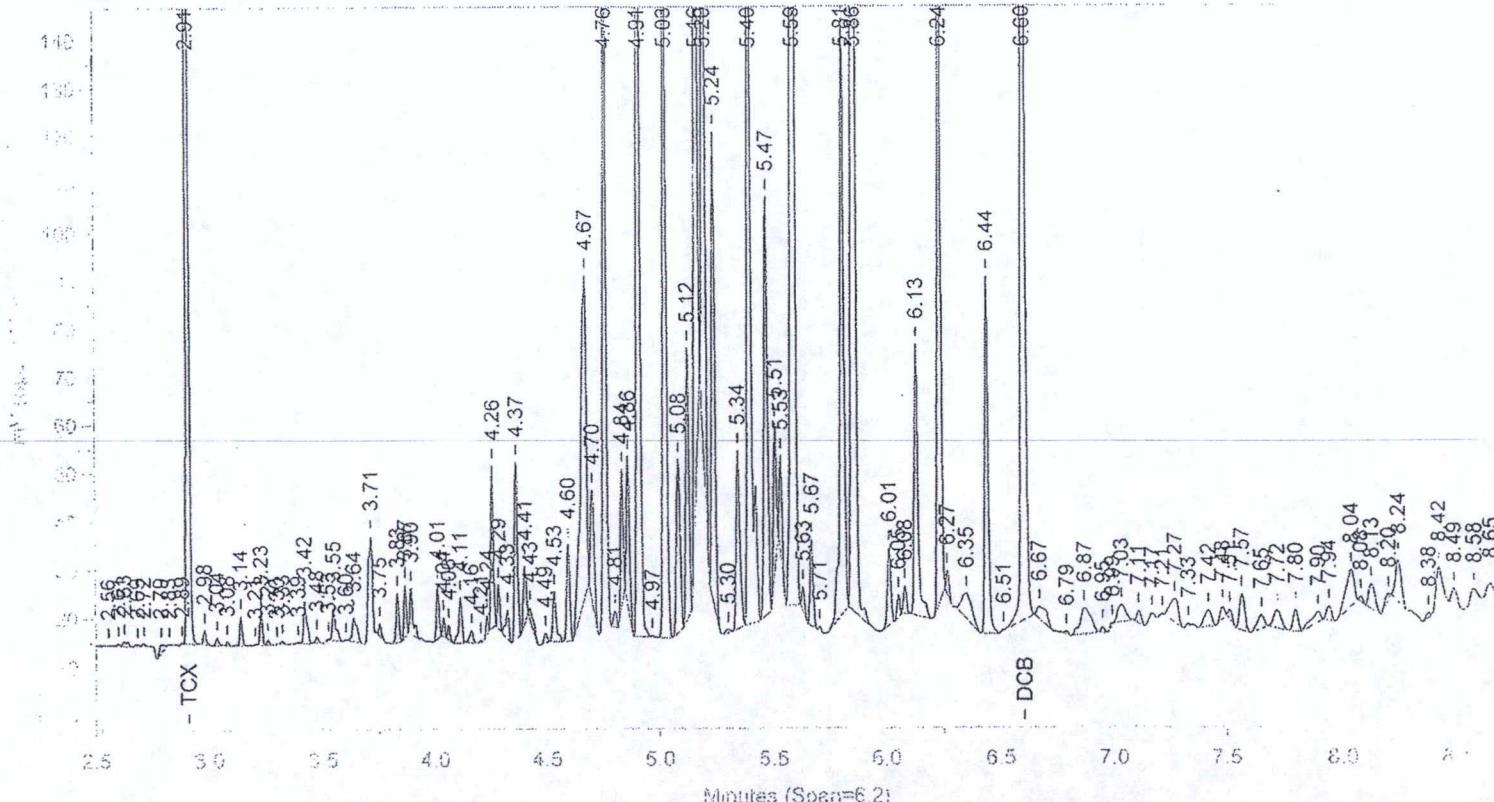


Instrument ID: CP08--17342A Injected On: 2/2/2012 11:49:25 AM

Column ID: ZB MULTITRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.66R

6532791ACF AB49112 T 120310008A 01216
C:\CPWIN\DATA1\IP20032B.66R



Instrument ID: CP08--17342B Injected On: 2/2/2012 11:49:25 AM

Column ID: ZB MULTITRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532792 ACF SWB16 Sample ID: AB Batchnumber: 12031008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on	Feb 02, 2012 12:00:58	
Instrument	17342A	
Result file	1P20032.67R	
Calibration file	1P20032	
Method file	PESTDB	
%SSR(TCX)	88.0%	Conc: 9.078916
%SSR(DCB)	108.6%	Conc: 10.86411

Analysis Report (B)

Injected on	Feb 02, 2012 12:00:58	
Instrument	17342B	
Result file	1P20032B.67R	
Calibration file	1P20032B	
Method file	PESTDB	
%SSR(TCX)	89.3%	Conc: 9.215807
%SSR(DCB)	105.8%	Conc: 10.58233

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248			<17	<3.3			4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260			<17	<3.9			4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: MARSH

Verified by: _____

Date: 2/8/12

Date: FEB 06 2012

Melissa A. McDermott
Senior Chemist

Melissa A. McDermott

Lancaster Laboratories Multiple Component Peak Data Report

Sample Name: 6532792ACF

SWB16

Sample ID: AB

Batchnumber: 12031008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:00:58
 Instrument : CP08-17342A
 Result file : 1P20032.67R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

%SSR(TCX) : 88% (53-139) Conc.: 9.078916
 %SSR(DCB) : 108.6% (53-133) Conc.: 10.86411

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				3	84.11		

Aroclor-1016
 3.24 3.25 3.30 125.90062 1.303052 1
 3.46 3.50 3.52 430.603516 3.723024 2
 3.77 3.79 3.83 156.560776 0.691688 4

Height Summation: 713.064912

Amount Avg CF: 1.905921 Linear:

Aroclor-1221
 3.20 3.20 3.26 119.519852 2.609889 3 111.51
 3.20 3.22 3.26 499.729309 10.912312 2
 +* 3.20 3.25 3.26 125.90062 2.749222 2
 * 3.25 3.25 3.31 125.90062 0.893387 3

Height Summation: 745.149781

Amount Avg CF: 4.805196 Linear:

Aroclor-1232
 3.25 3.25 3.31 125.90062 0.990953 3 108.63
 3.46 3.50 3.52 430.603516 6.947459 4
 3.77 3.79 3.83 156.560776 1.312714 1

Height Summation: 713.064912

Amount Avg CF: 3.083709 Linear:

Aroclor-1242
 3.25 3.25 3.31 125.90062 1.528569 3 81.53
 3.47 3.50 3.53 430.603516 4.232808 1
 3.77 3.79 3.83 156.560776 0.839086 2

Height Summation: 713.064912

Amount Avg CF: 2.200154 Linear:

Aroclor-1248
 3.77 3.79 3.83 156.560776 1.416522 5 84.63
 3.94 3.97 4.00 37.930592 0.405215 1
 4.07 4.10 4.13 24.388672 0.220067 2

Height Summation: 329.734173

Amount Avg CF: 0.691708 Linear:

Aroclor-1254
 4.49 4.52 4.55 24.772926 0.147957 5 72.49
 4.76 4.77 4.82 86.081207 0.418558 1

Height Summation: 473.031310

Amount Avg CF: 0.730838 Linear:

Aroclor-1260
 4.88 4.91 4.94 71.450935 0.459983 5 29.74
 5.09 5.12 5.15 126.613281 0.708282 1

Height Summation: 556.457046

Amount Avg CF: 0.587042 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:00:58
 Instrument : CP08-17342B
 Result file : 1P20032.B67R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

%SSR(TCX) : 89.3% (53-139) Conc.: 9.215807
 %SSR(DCB) : 105.8% (53-133) Conc.: 10.582331

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				5	116.66		

Aroclor-1016
 + 3.39 3.40 3.45 647.683533 0.604398 2
 3.39 3.42 3.45 602.231201 0.561984 2
 3.39 3.44 3.45 1354.648071 1.264116 2
 3.52 3.57 3.58 3215.073975 3.148749 3
 3.69 3.71 3.75 294.808136 0.132544 4
 3.80 3.85 3.86 274.433807 0.229642 5

Height Summation: 5741.195190

Amount Avg CF: 1.067407 Linear:

Aroclor-1221
 3.06 3.09 3.12 413.520203 0.815453 2 131.60 1
 3.12 3.14 3.18 8352.833984 22.664968 2
 + 3.12 3.17 3.18 2589.982666 7.027779 2

Height Summation: 8766.354187

Amount Avg CF: 11.740211 Linear:

Aroclor-1232
 + 3.39 3.40 3.45 647.683533 1.140067 5 117.66 2
 3.39 3.42 3.45 602.231201 1.060061 2
 3.39 3.44 3.45 1354.648071 2.384482 2
 3.52 3.57 3.58 3215.073975 6.10042 3
 3.69 3.71 3.75 294.808136 0.255408 4
 3.80 3.85 3.86 274.433807 0.45073 5

Height Summation: 5741.195190

Amount Avg CF: 2.05022 Linear:

Aroclor-1242
 + 3.39 3.40 3.45 647.683533 0.702702 5 116.50 2
 3.39 3.42 3.45 602.231201 0.653388 2
 3.39 3.44 3.45 1354.648071 1.46972 2
 3.52 3.57 3.58 3215.073975 3.679311 3
 3.69 3.71 3.75 294.808136 0.15776 4
 3.81 3.85 3.87 274.433807 0.276398 5

Height Summation: 5741.195190

Amount Avg CF: 1.247315 Linear:

Aroclor-1248
 3.68 3.71 3.74 294.808136 0.29233 4 45.86 1
 4.23 4.28 4.29 1466.194824 0.812586 3
 4.38 4.42 4.44 970.949402 1.153848 4
 4.63 4.66 4.69 828.252319 0.958962 5

Height Summation: 3560.204681

Amount Avg CF: 0.804432 Linear:

Aroclor-1254
 4.34 4.37 4.40 341.528778 0.193884 5 44.63 1
 4.57 4.59 4.63 715.28064 0.47553 2
 4.63 4.66 4.69 828.252319 0.332913 3
 5.05 5.09 5.11 967.942749 0.724291 5
 5.14 5.16 5.20 969.08783 0.490351 6
 + 5.14 5.19 5.20 626.991821 0.317253 6

Height Summation: 3822.092316

Amount Avg CF: 0.443394 Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:24:29

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532792ACF SWB16 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:00:58
 Instrument : CP08-17342A
 Result file : 1P20032.67R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					5	84.56		
4.88	4.91	4.94	71.450935	0.574803		1		
5.09	5.12	5.15	126.613281	0.895395		2		
5.37	5.39	5.43	85.310005	0.486138		3		
5.77	5.80	5.83	129.457062	0.400077		4		
6.41	6.43	6.47	268.893524	2.29912		6		
Height Summation:			681.724807					
Amount Avg CF:			0.931107					

Amount Avg CF: 0.931107 Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					4	116.98		
6.03	6.06	6.09	54.047577	0.18185		2		
6.17	6.19	6.23	164.392578	0.623727		3		
6.41	6.43	6.47	268.893524	2.113943		5		
6.61	6.64	6.67	146.195251	0.200348		6		
Height Summation:			633.528930					
Amount Avg CF:			0.779967					

Amount Avg CF: 0.779967 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:00:58
 Instrument : CP08-17342B
 Result file : 1P20032B.67R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260					6	27.26		
4.73	4.76	4.79	1213.855347		0.669059			1
4.88	4.91	4.94	1349.18689		0.590206			2
5.00	5.02	5.06	559.825928		0.304128			3
5.13	5.16	5.19	969.08783		0.483392			4
5.56	5.59	5.62	1892.120239		0.499113			5
5.83	5.85	5.89	1038.974976		0.38172			6
Height Summation:			7023.051210					

Amount Avg CF: 0.487936 Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					6	47.55		
4.88	4.91	4.94	1349.18689		0.768542			1
5.00	5.02	5.06	559.825928		0.321613			2
5.17	5.19	5.23	626.991821		0.275233			3
5.37	5.40	5.43	702.889751		0.295339			4
5.56	5.59	5.62	1892.120239		0.390505			5
5.83	5.85	5.89	1038.974976		0.314339			6
Height Summation:			6169.969605					

Amount Avg CF: 0.394262 Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268					6	61.66		
5.78	5.78	5.84	5262.705078		0.947585			1
5.83	5.85	5.89	1038.974976		0.189223			2
5.98	6.01	6.04	2100.249512		0.482516			3
+ 6.05	6.05	6.11	446.098663		0.408768			4
6.05	6.08	6.11	395.58252		0.362479			4
6.21	6.23	6.27	1129.051758		0.597477			5
6.41	6.44	6.47	2954.182617		0.199606			6
Height Summation:			12880.746461					

Amount Avg CF: 0.463148 Linear:

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			17	3.3		** 56.40	4	40	
Aroclor-1221			17	3.3		** 83.83	3	40	
Aroclor-1232			17	3.3		** 40.26	4	40	
Aroclor-1242			17	3.3		** 55.28	4	40	
Aroclor-1248			17	3.3		15.07	4	40	
Aroclor-1254			17	3.3		** 48.96	4	40	
Aroclor-1260			17	3.9		18.44	4	40	
Aroclor-1262			0	0		** 81.01	4	40	
Aroclor-1268			0	0		** 50.97	4	40	
Total PCBs			0	0					
Units: ug/kg									

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

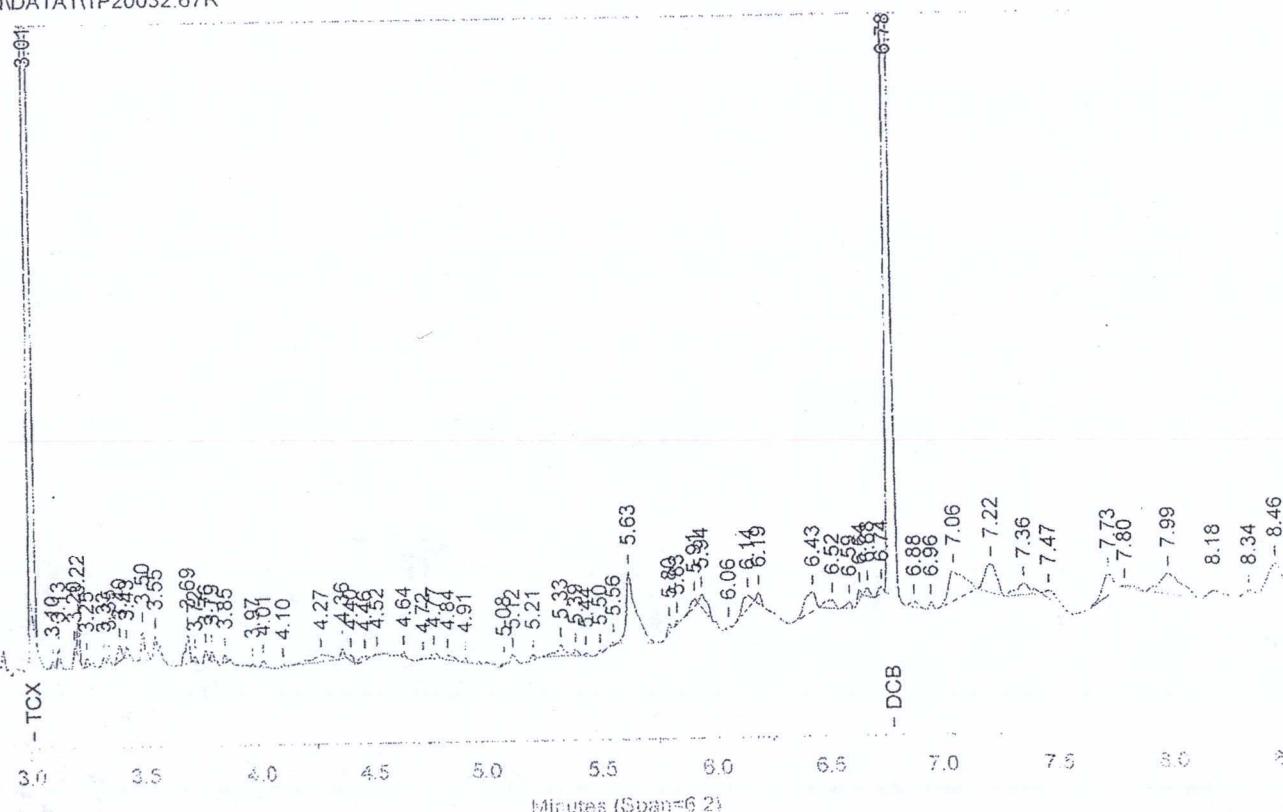
Printed on: 2/2/12 20:24:29

6532792ACF ABSWB16 T 120310008A 01216

LANCASTER LABORATORIES

6532792ACF ABSWB16 T 120310008A 01216
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File: C:\CPWIN\DATA1\1P20032.67R

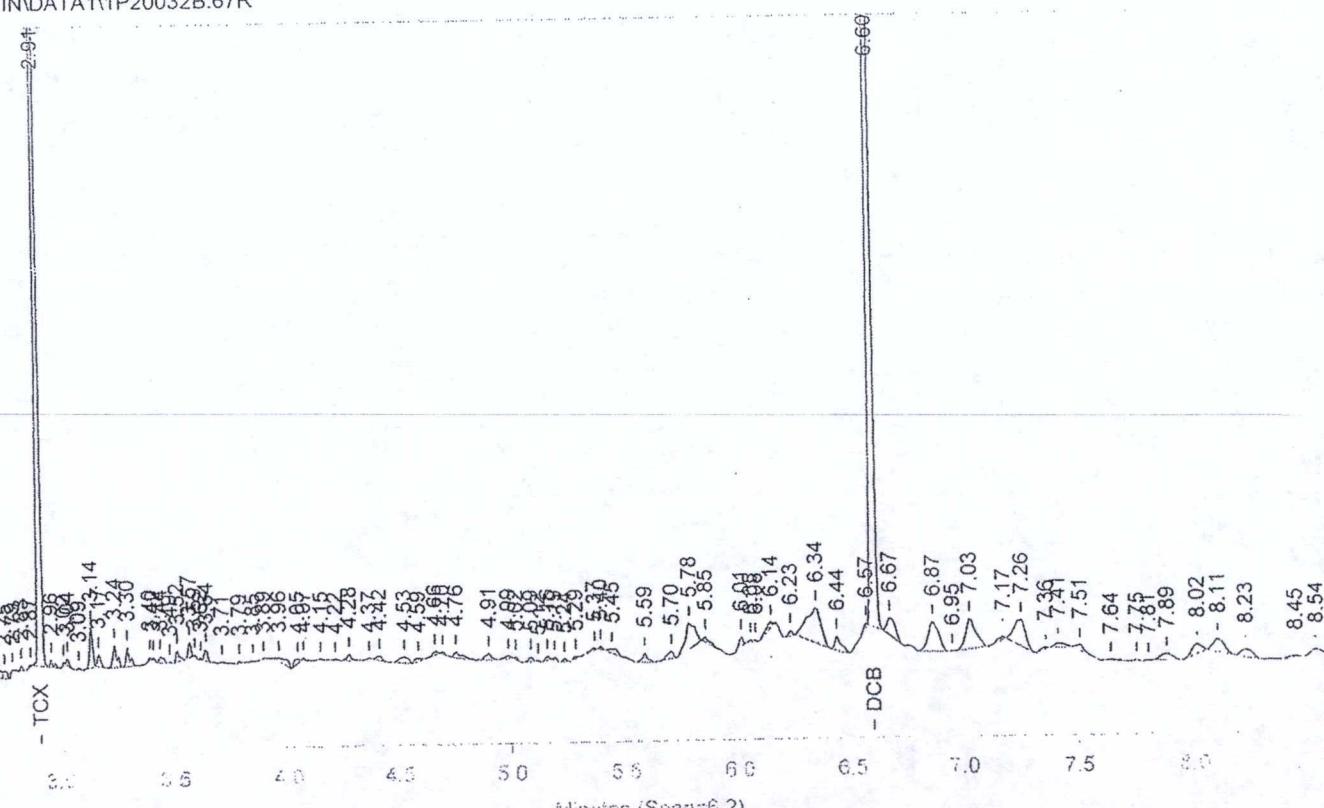


Instrument ID: CP08--17342A Injected On: 2/2/2012 12:00:57 PM

Column ID: ZB MULTIRE 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\1P20032B.67R

6532792ACF ABSWB16 T 120310008A 01216
C:\CPWIN\DATA1\1P20032B.67R



Instrument ID: CP08--17342B Injected On: 2/2/2012 12:00:57 PM

Column ID: ZB MULTIRE2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532793 ACF SWB18 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 12:12:24
 Instrument 17342A
 Result file 1P20032.68R
 Calibration file 1P20032
 Method file PESTD
 %SSR(TCX) 98.5% Conc: 10.15549
 %SSR(DCB) 115.9% Conc: 11.58596

Analysis Report (B)

Injected on Feb 02, 2012 12:12:24
 Instrument 17342B
 Result file 1P20032B.68R
 Calibration file 1P20032B
 Method file PESTDB
 %SSR(TCX) 101.1% Conc: 10.42351
 %SSR(DCB) 116.1% Conc: 11.60535

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248			<17	<3.3			4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260			<17	<3.9			4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: MASH

Date: 2/3/12

Verified by: FEF 06 2012

Date:

Melissa A. McDermott
Senior Chemist

Melissa A. McDermott

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532793ACF

SWB18

Sample ID: AB

Batchnumber: 120310008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:12:24
 Instrument : CP08-17342A
 Result file : 1P20032.68R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

%SSR(TCX) : 98.5% (53-139) Conc.: 10.155499
 %SSR(DCB) : 115.9% (53-133) Conc.: 11.585964

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	59.47		
Aroclor-1016				0.468176		1	
3.24	3.27	3.30	45.235027				
3.77	3.82	3.83	40.183613	0.177532		4	
3.87	3.88	3.93	14.182896	0.121542		5	
4.16	4.19	4.22	37.47427	0.455306		6	

Height Summation: 137.075806

Amount Avg CF: 0.305639 Linear:

Aroclor-1221
 + 3.20 3.20 3.26 97.030869 2.118809 2 133.91
 3.20 3.22 3.26 539.182068 11.77382 2
 3.25 3.27 3.31 45.235027 0.320987 3

Height Summation: 584.417095

Amount Avg CF: 6.047404 Linear:

Aroclor-1232
 3.25 3.27 3.31 45.235027 0.356041 4 61.46
 3.77 3.82 3.83 40.183613 0.336927 3
 3.87 3.88 3.93 14.182896 0.230223 5
 4.17 4.19 4.23 37.47427 0.837227 6

Height Summation: 137.075806

Amount Avg CF: 0.440105 Linear:

Aroclor-1242
 3.25 3.27 3.31 45.235027 0.549202 4 56.76
 3.77 3.82 3.83 40.183613 0.215364 1
 3.87 3.88 3.93 14.182896 0.146525 4
 4.17 4.19 4.23 37.47427 0.487946 5

Height Summation: 137.075806

Amount Avg CF: 0.349759 Linear:

Aroclor-1248
 3.77 3.82 3.83 40.183613 0.363571 4 60.65
 4.17 4.19 4.23 37.47427 0.375075 1
 4.49 4.52 4.55 79.559242 0.605819 4
 4.76 4.78 4.82 82.752831 1.180611 5

Height Summation: 239.969956

Amount Avg CF: 0.631269 Linear:

Aroclor-1254
 4.49 4.52 4.55 79.559242 0.475171 6 103.94
 4.76 4.78 4.82 82.752831 0.402374 1
 4.98 5.01 5.04 22.282694 0.142684 2
 5.09 5.12 5.15 364.865753 4.269383 3
 5.18 5.21 5.24 177.91394 1.408882 4
 5.30 5.33 5.36 409.578217 2.595799 5

Height Summation: 1136.952677

Amount Avg CF: 1.549049 Linear:

Aroclor-1260
 4.88 4.91 4.94 263.038239 1.693372 6 7.08
 5.09 5.12 5.15 364.865753 2.041081 1
 5.30 5.33 5.36 409.578217 2.085584 2
 5.53 5.56 5.59 267.598419 1.973466 3
 5.77 5.80 5.83 574.769043 2.010824 4
 5.98 6.01 6.04 316.379333 1.984535 5

Height Summation: 2196.229004

Amount Avg CF: 1.96481 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:12:24
 Instrument : CP08-17342B
 Result file : 1P20032B.68R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

%SSR(TCX) : 101.1% (53-139) Conc.: 10.42351
 %SSR(DCB) : 116.1% (53-133) Conc.: 11.605357

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	181.69		
Aroclor-1016				0.224318		1	
3.18	3.21	3.24	184.978287				
+ 3.18	3.24	3.24	2865.21582	3.474568		1	
3.39	3.44	3.45	198.022064	0.184788		2	
+ 3.52	3.53	3.58	1037.354492	1.015955		3	
3.52	3.57	3.58	7846.547363	7.684679		3	
3.69	3.69	3.75	350.653473	0.157652		4	

Height Summation: 8580.201187

Amount Avg CF: 2.062859 Linear:

Aroclor-1221
 3.06 3.08 3.12 778.501465 1.535188 3 152.21
 3.12 3.14 3.18 6932.929199 18.812132 1
 3.18 3.21 3.24 184.978287 0.147441 2
 + 3.18 3.24 3.24 2865.21582 2.283304 3

Height Summation: 7896.408951

Amount Avg CF: 6.831577 Linear:

Aroclor-1232
 3.18 3.21 3.24 184.978287 0.162709 4 186.17
 + 3.18 3.24 3.24 2865.21582 2.520278 1
 3.39 3.44 3.45 198.022064 0.348563 2
 + 3.52 3.53 3.58 1037.354492 1.968321 3
 3.52 3.57 3.58 7846.547363 14.888378 3
 3.69 3.69 3.75 350.653473 0.303789 4

Height Summation: 8580.201187

Amount Avg CF: 3.92586 Linear:

Aroclor-1242
 3.18 3.21 3.24 184.978287 0.261352 4 181.65
 + 3.18 3.24 3.24 2865.21582 4.048202 1
 3.39 3.44 3.45 198.022064 0.214843 2
 + 3.52 3.53 3.58 1037.354492 1.187142 3
 3.52 3.57 3.58 7846.547363 8.979541 3
 3.69 3.69 3.75 350.653473 0.187644 4

Height Summation: 8580.201187

Amount Avg CF: 2.410845 Linear:

Aroclor-1248
 3.68 3.69 3.74 350.653473 0.347705 5 54.24
 + 4.23 4.24 4.29 59.146614 0.03278 1
 4.23 4.28 4.29 2245.629395 1.24456 2
 4.38 4.42 4.44 794.068848 0.943648 3
 4.63 4.67 4.69 1210.732178 1.401802 5
 4.81 4.84 4.87 269.030548 0.42756 6
 + 4.81 4.86 4.87 566.245239 0.899911 6

Height Summation: 4870.114442

Amount Avg CF: 0.873055 Linear:

Aroclor-1254
 4.34 4.37 4.40 672.652039 0.381862 6 89.01
 4.57 4.60 4.63 501.265533 0.33325 1
 4.63 4.67 4.69 1210.732178 0.48665 2
 4.81 4.84 4.87 269.030548 0.147278 3
 + 4.81 4.86 4.87 566.245239 0.309985 4
 5.05 5.09 5.11 950.335999 0.711116 5
 5.14 5.16 5.20 3361.55249 1.700921 6

Height Summation: 6965.568787

Amount Avg CF: 0.626846 Linear:

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:24:40

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532793ACF

SWB18

Sample ID: AB

Batchnumber: 120310008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:12:24
 Instrument : CP08-17342A
 Result file : 1P20032.68R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Min R.T. Max Height

				Amount	Pks	%RSD	Peak
Aroclor-1262				6	24.26		
4.88	4.91	4.94	263.038239	2.116071	1		
5.09	5.12	5.15	364.865753	2.580289	2		
5.37	5.40	5.43	283.035553	1.612876	3		
5.77	5.80	5.83	574.769043	1.776281	4		
5.98	6.01	6.04	316.379333	1.628848	5		
6.41	6.44	6.47	154.357285	1.319801	6		

Height Summation: 1956.445206

Amount Avg CF: 1.839028

Linear:

				Amount	Pks	%RSD	Peak
Aroclor-1268				6	54.00		
5.97	6.01	6.03	316.379333	0.896767	1		
6.03	6.06	6.09	106.453339	0.358175	2		
6.17	6.19	6.23	191.101303	0.725063	3		
6.23	6.28	6.29	119.452965	1.558421	4		
6.41	6.44	6.47	154.357285	1.213501	5		
6.61	6.64	6.67	303.438171	0.415837	6		

Height Summation: 1191.182396

Amount Avg CF: 0.861294

Linear:

Summary Report

Compound Name

Aroclor-1016

Aroclor-1221

Aroclor-1232

Aroclor-1242

Aroclor-1248

Aroclor-1254

Aroclor-1260

Aroclor-1262

Aroclor-1268

Total PCBs

Units: ug/kg

Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
		17	3.3		** 148.38	4	40	
		17	3.3		12.18	3	40	
		17	3.3		** 159.68	4	40	
		17	3.3		** 149.32	4	40	
		17	3.3		32.15	4	40	
		17	3.3		** 84.77	4	40	
		17	3.9		21.07	4	40	
		0	0		27.96	4	40	
		0	0		** 62.09	4	40	
		0	0					

Analysis Report (B)

Injected on : FEB 02, 2012 12:12:24
 Instrument : CP08-17342B
 Result file : 1P20032B.68R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Min R.T. Max Height

				Amount	Pks	%RSD	Peak
Aroclor-1260				6	12.40		
4.73	4.76	4.79	3057.466064	1.685231	1		
4.88	4.91	4.94	4002.302979	1.750821	2		
5.00	5.03	5.06	3142.652588	1.707261	3		
5.13	5.16	5.19	3361.55249	1.676779	4		
5.56	5.59	5.62	4670.297852	1.231955	5		
+ 5.56	5.61	5.62	1766.442017	0.465961	5		
5.83	5.85	5.89	4054.553223	1.489646	6		

Height Summation: 22288.825196

Amount Avg CF: 1.590282

Linear:

				Amount	Pks	%RSD	Peak
Aroclor-1262				6	39.09		
4.88	4.91	4.94	4002.302979	2.279846	1		
5.00	5.03	5.06	3142.652588	1.805414	2		
5.17	5.20	5.23	2040.437866	0.895698	3		
5.37	5.40	5.43	2751.047607	1.155963	4		
5.56	5.59	5.62	4670.297852	0.963879	5		
+ 5.56	5.61	5.62	1766.442017	0.364567	5		
5.83	5.85	5.89	4054.553223	1.226693	6		

Height Summation: 20661.292115

Amount Avg CF: 1.387916

Linear:

				Amount	Pks	%RSD	Peak
Aroclor-1268				6	66.80		
+ 5.78	5.78	5.84	1310.747803	0.236009	1		
5.78	5.81	5.84	1212.901611	0.218391	1		
5.83	5.85	5.89	4054.553223	0.738435	2		
5.98	6.01	6.04	2791.334229	0.641288	3		
6.05	6.10	6.11	147.268799	0.134945	4		
6.21	6.24	6.27	1501.846924	0.794754	5		
6.41	6.44	6.47	2834.662109	0.191531	6		

Height Summation: 12542.566895

Amount Avg CF: 0.453224

Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

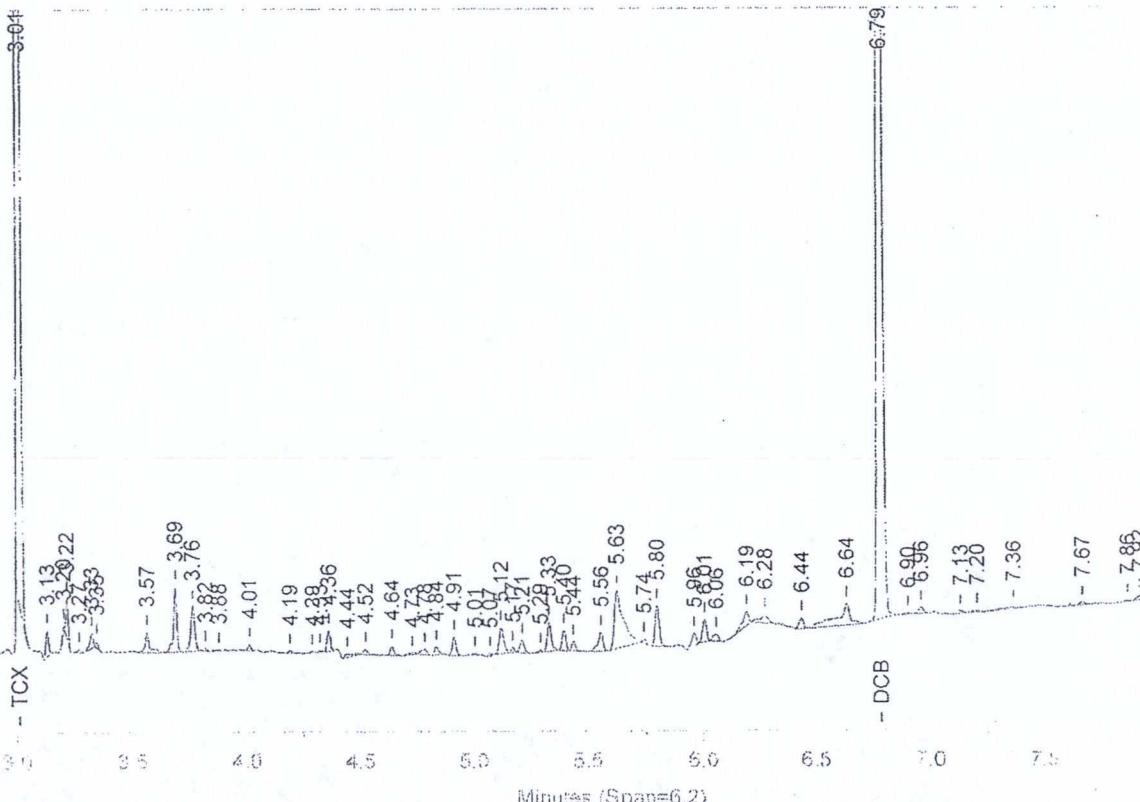
6532793ACF ABSWB18 T 120310008A 01216

Page 1

LANCASTER LABORATORIES

File: C:\CPWIN\DATA1\IP20032.68R

6532793ACF ABSWB18 T 120310008A 01216
C:\CPWIN\DATA1\IP20032.68R

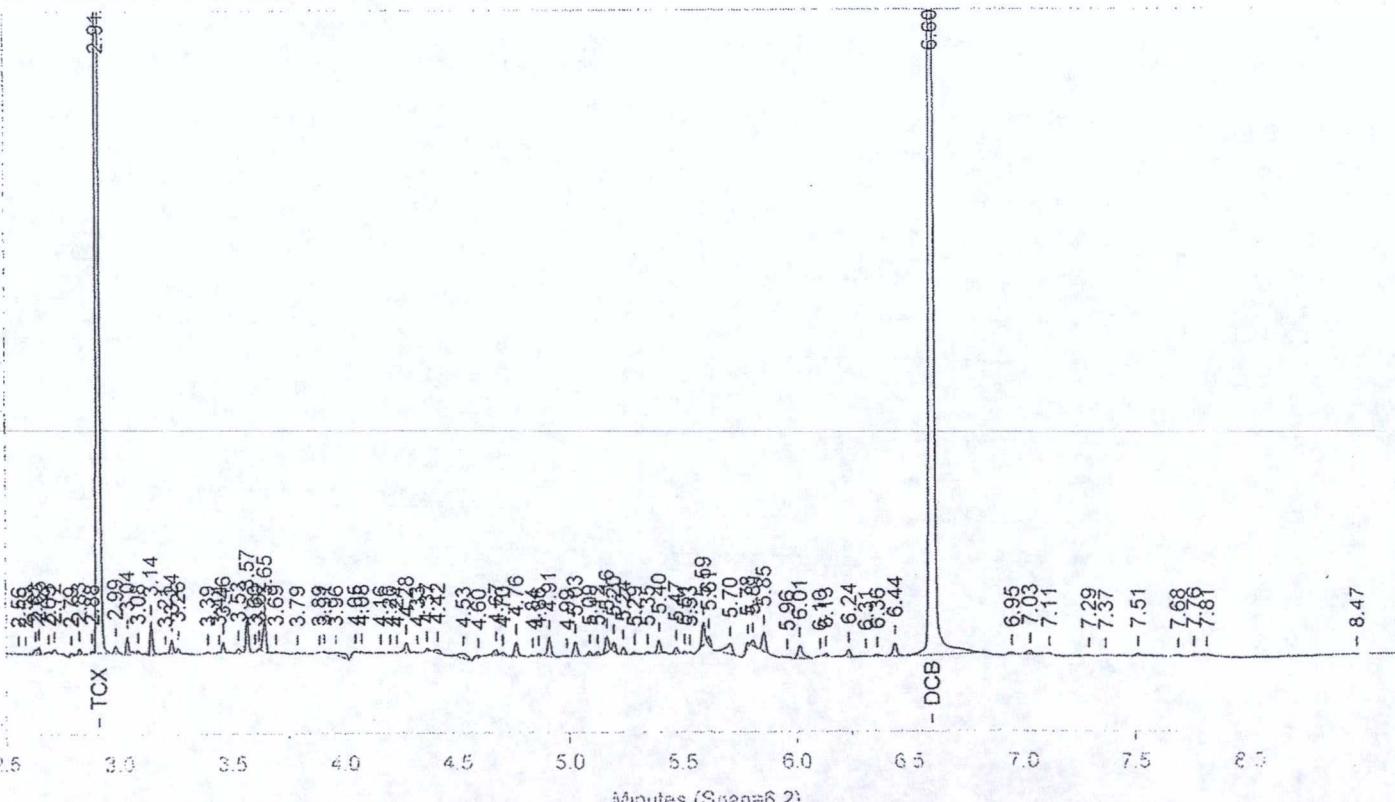


Instrument ID: CP08--17342A Injected On: 2/2/2012 12:12:23 PM

Column ID: ZB MULTITRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.68R

6532793ACF ABSWB18 T 120310008A 01216
C:\CPWIN\DATA1\IP20032B.68R



Instrument ID: CP08--17342B Injected On: 2/2/2012 12:12:23 PM

Column ID: ZB MULTITRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532794 ACF SWB23 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 12:23:48
 Instrument 17342A
 Result file 1P20032.69R
 Calibration file 1P20032
 Method file PESTD
 %SSR(TCX) 95.5% Conc: 9.851107
 %SSR(DCB) 111.8% Conc: 11.17650

Analysis Report (B)

Injected on Feb 02, 2012 12:23:48
 Instrument 17342B
 Result file 1P20032B.69R
 Calibration file 1P20032B
 Method file PESTDB
 %SSR(TCX) 95.1% Conc: 9.80512
 %SSR(DCB) 112.4% Conc: 11.23811

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248			<17	<3.3			4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260			<17	<3.9			4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: MAS

Verified by: Melissa A. McDermott

Date: 2/3/12

Date: FEB 8 6 2012

Melissa A. McDermott
 Senior Chemist

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532794 ACF

Sample Amount: 30 g

SWB23

Total Volume: 10 ml

Sample ID: AB

Analyst: 2855

Batchnumber: 120310008A

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:23:48

Instrument : CP08--17342A

Result file : 1P20032.69R

Calibration file : 1P20032.CAL

Method file : PESTD.MET

%SSR(TCX) : 95.5% (53-139)

%SSR(DCB) : 111.8% (53-133)

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	61.15		

Aroclor-1016	3.24	3.27	3.30	53.780544	0.55662		1
	3.46	3.49	3.52	41.154751	0.355827		2
	3.58	3.59	3.64	49.939068	0.424474		3
	4.16	4.19	4.22	99.149162	1.204647		6

Height Summation: 244.023525

Amount Avg CF: 0.635392 Linear:

Aroclor-1221

3.14	3.17	3.20	34.897095	0.633744	3	157.15	
3.20	3.22	3.26	704.947937	15.393557	2		
3.25	3.27	3.31	53.780544	0.381625	3		

Height Summation: 793.625576

Amount Avg CF: 5.469642 Linear:

Aroclor-1232

3.25	3.27	3.31	53.780544	0.423302	4	79.20	
3.46	3.49	3.52	41.154751	0.664001	1		
3.58	3.59	3.64	49.939068	0.785947	2		
4.17	4.19	4.23	99.149162	2.215129	6		

Height Summation: 244.023525

Amount Avg CF: 1.022095 Linear:

Aroclor-1242

3.25	3.27	3.31	53.780544	0.652954	4	55.86	
3.47	3.49	3.53	41.154751	0.404549	2		
3.58	3.59	3.64	49.939068	0.504664	3		
4.17	4.19	4.23	99.149162	1.291005	6		

Height Summation: 507.534344

Amount Avg CF: 0.713293 Linear:

Aroclor-1248

3.94	3.97	4.00	57.021595	0.609166	5	52.87	
4.07	4.10	4.13	134.535385	1.21396	2		
4.17	4.19	4.23	99.149162	0.992371	4		
4.49	4.52	4.55	77.848511	0.592793	5		
4.76	4.78	4.82	138.979691	1.982784	6		

Height Summation: 1.078215

Amount Avg CF: 1.078215 Linear:

Aroclor-1254

4.49	4.52	4.55	77.848511	0.464953	6	105.62	
4.76	4.78	4.82	138.979691	0.675769	1		
4.98	5.01	5.04	33.145027	0.21224	2		
5.09	5.12	5.15	453.186676	5.302848	3		
5.18	5.21	5.24	187.713272	1.486482	4		
5.30	5.33	5.36	490.954895	3.111544	5		

Height Summation: 1381.828072

Amount Avg CF: 1.875639 Linear:

Aroclor-1260

4.88	4.91	4.94	340.974915	2.195108	6	9.15	
5.09	5.12	5.15	453.186676	2.535154	1		
5.30	5.33	5.36	490.954895	2.499956	2		
5.53	5.56	5.59	363.871918	2.683457	3		
5.77	5.80	5.83	798.430298	2.7933	4		
5.98	6.01	6.04	453.308838	2.843445	5		

Height Summation: 2900.727540

Amount Avg CF: 2.591737 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:23:48

Instrument : CP08--17342B

Result file : 1P20032B.69R

Calibration file : 1P20032B.CAL

Method file : PESTDB.MET

%SSR(TCX) : 95.1% (53-139)

%SSR(DCB) : 112.4% (53-133)

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	116.66		

Aroclor-1016	3.18	3.18	3.24	183.937424	0.223056		1
	+ 3.18	3.23	3.24	1156.234741	1.402134		1
	+ 3.39	3.40	3.45	239.108932	0.223129		2
	3.39	3.44	3.45	312.624176	0.291731		2
	+ 3.52	3.53	3.58	942.709778	0.923262		3
	3.52	3.57	3.58	3135.684326	3.070997		3
	3.69	3.72	3.75	999.557617	0.449396		4
	3.80	3.83	3.86	686.223877	0.574221		5
	3.98	4.04	4.04	848.929871	0.953247		6

Height Summation: 6166.957291

Amount Avg CF: 0.927108 Linear:

Aroclor-1221

3.06	3.09	3.12	272.982056	0.538315	3	164.06	
3.12	3.14	3.18	6899.459473	18.721314	2		
3.18	3.18	3.24	183.937424	0.146581	3		
	+ 3.18	3.23	3.24	1156.234741	0.921409	3	

Height Summation: 7356.378953

Amount Avg CF: 6.468737 Linear:

Aroclor-1232

3.18	3.18	3.24	183.937424	0.161794	6	120.86	
	+ 3.18	3.23	3.24	1156.234741	1.017038	1	
	+ 3.39	3.40	3.45	239.108932	0.420885	2	
	3.39	3.44	3.45	312.624176	0.550288	2	
	+ 3.52	3.53	3.58	942.709778	1.788738	3	
	3.52	3.57	3.58	3135.684326	5.949783	3	
	3.69	3.72	3.75	999.557617	0.865969	4	
	3.80	3.83	3.86	686.223877	1.127054	5	
	3.98	4.04	4.04	848.929871	1.948204	6	

Height Summation: 6166.957291

Amount Avg CF: 1.767182 Linear:

Aroclor-1242

+ 3.18	3.18	3.24	183.937424	0.259881	6	91.85	
3.18	3.23	3.24	1156.234741	1.633619	1		
+ 3.39	3.40	3.45	239.108932	0.25942	2		
3.39	3.44	3.45	312.624176	0.33918	2		
+ 3.52	3.53	3.58	942.709778	1.078831	3		
3.52	3.57	3.58	3135.684326	3.588458	3		

Height Summation: 7139.254608

Amount Avg CF: 1.312916 Linear:

Aroclor-1248

3.68	3.72	3.74	999.557617	0.991154	7	67.47	
3.98	4.04	4.04	848.929871	0.700882	2		
+ 4.23	4.24	4.29	114.820236	0.063635	3		
4.23	4.26	4.29	477.841461	0.264827	3		
4.23	4.28	4.29	1810.804077	1.003574	3		
4.38	4.41	4.44	789.134705	0.937785	4		
4.63	4.67	4.69	1944.484497	2.25135	5		
4.81	4.84	4.87	302.216644	0.480301	6		
+ 4.81	4.86	4.87	709.660583	1.127835	6		

Height Summation: 7172.968872

Amount Avg CF: 0.947125 Linear:

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:24:51

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532794 ACF

SWB23

Sample ID: AB

Batchnumber: 12031008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:23:48
 Instrument : CP08-17342A
 Result file : 1P20032.B69R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Min R.T. Max Height

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	16.30		
Aroclor-1262								
4.88	4.91	4.94	340.974915		2.743051	1		
5.09	5.12	5.15	453.186676		3.204884	2		
5.37	5.39	5.43	383.688599		2.186447	3		
5.77	5.80	5.83	798.430298		2.46749	4		
5.98	6.01	6.04	453.308838		2.333816	5		
6.41	6.44	6.47	246.716461		2.109499	6		
Height Summation:			2676.305787					
Amount Avg CF:			2.507531					

Height Summation: 2676.305787
 Amount Avg CF: 2.507531

Linear:

Aroclor-1268

5.97 6.01 6.03 453.308838
 6.03 6.06 6.09 186.945969
 6.17 6.20 6.23 190.508194
 6.23 6.28 6.29 96.410789
 6.41 6.44 6.47 246.716461
 6.61 6.64 6.67 258.642944

Height Summation: 1432.533195

Amount Avg CF: 1.031426

Linear:

6 55.79

Height Summation: 1432.533195

Amount Avg CF: 1.031426

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:23:48
 Instrument : CP08-17342B
 Result file : 1P20032B.69R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Min R.T. Max Height

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	86.89		
Aroclor-1254								
4.34	4.37	4.40	931.1922		0.528634	1		
4.57	4.60	4.63	667.18103		0.443553	2		
4.63	4.67	4.69	1944.484497		0.781579	3		
4.81	4.84	4.87	302.216644		0.165445	4		
+ 4.81	4.86	4.87	709.660583		0.388496	4		
5.05	5.09	5.11	860.826233		0.644138	5		
5.14	5.16	5.20	4109.214844		2.079232	6		
Height Summation:			8815.115448					
Amount Avg CF:			0.773764					

Height Summation: 8815.115448

Amount Avg CF: 0.773764

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	8.20		
Aroclor-1260								
4.73	4.76	4.79	4569.421875		2.518599	1		
4.88	4.91	4.94	5001.757324		2.188036	2		
5.00	5.03	5.06	3855.612793		2.09458	3		
5.13	5.16	5.19	4109.214844		2.049722	4		
5.56	5.59	5.62	8606.206055		2.270189	5		
5.83	5.85	5.89	5583.503906		2.051384	6		
Height Summation:			31725.716797					
Amount Avg CF:			2.195418					

Height Summation: 31725.716797

Amount Avg CF: 2.195418

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	25.36		
Aroclor-1262								
4.88	4.91	4.94	5001.757324		2.849169	1		
5.00	5.03	5.06	3855.612793		2.215001	2		
5.17	5.20	5.23	3608.503906		1.584038	3		
5.37	5.40	5.43	3828.975342		1.608897	4		
+ 5.37	5.42	5.43	414.599182		0.17421	4		
5.56	5.59	5.62	8606.206055		1.776191	5		
5.83	5.85	5.89	5583.503906		1.689273	6		
Height Summation:			30484.559326					
Amount Avg CF:			1.953762					

Height Summation: 30484.559326

Amount Avg CF: 1.953762

Linear:

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	68.91		
Aroclor-1268								
+ 5.78	5.78	5.84	1899.360474		0.341992	1		
5.78	5.81	5.84	2167.672607		0.390304	1		
5.83	5.85	5.89	5583.503906		1.016896	2		
5.98	6.01	6.04	2870.842285		0.659554	3		
6.05	6.10	6.11	372.123413		0.340983	4		
6.21	6.23	6.27	2685.558838		1.421156	5		
6.41	6.44	6.47	3179.121826		0.214805	6		
Height Summation:			16858.822875					
Amount Avg CF:			0.67395					

Height Summation: 16858.822875

Amount Avg CF: 0.67395

Linear:

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			17	3.3		37.34	4	40	
Aroclor-1221			17	3.3		16.74	3	40	
Aroclor-1232			17	3.3		** 53.43	4	40	
Aroclor-1242			17	3.3		** 59.19	4	40	
Aroclor-1248			17	3.3		12.94	4	40	
Aroclor-1254			17	3.3		** 83.18	4	40	
Aroclor-1260			17	3.9		16.56	4	40	
Aroclor-1262		0	0			24.83	4	40	
Aroclor-1268		0	0			** 41.92	4	40	

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532794 ACF SWB23 Sample ID: AB Batchnumber: 120310008A
Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG:
Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 12:23:48
Instrument : CP08-17342A
Result file : 1P20032.69R
Calibration file : 1P20032.CAL
Method file : PESTD.MET

Analysis Report (B)

Injected on : FEB 02, 2012 12:23:48
Instrument : CP08-17342B
Result file : 1P20032B.69R
Calibration file : 1P20032B.CAL
Method file : PESTDB.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Total PCBs			0	0					

Units: ug/kg

* Peak found within more than one window

+Duplicate Peak in window - not included in average

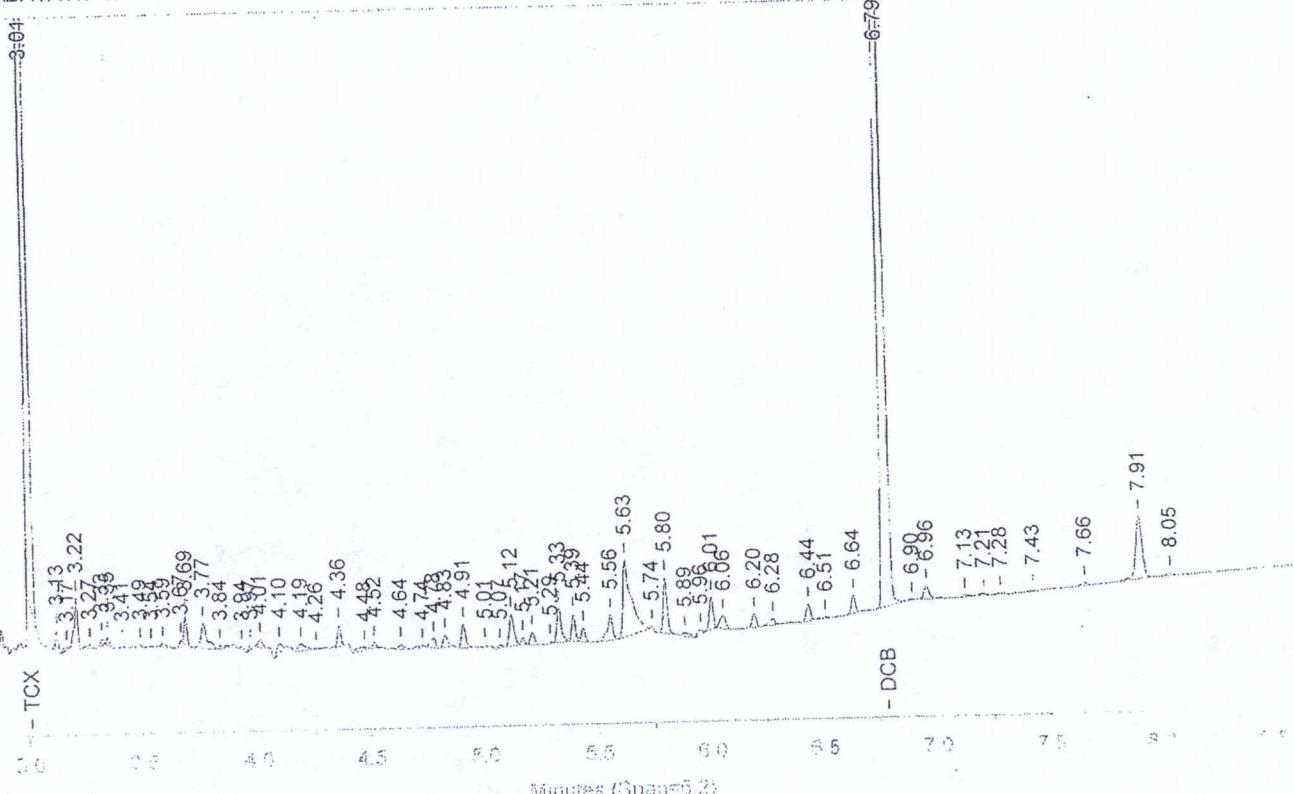
Printed on: 2/2/12 20:24:51

6532794ACF ABSWB23 T 12031008A 01216

File: C:\CPWIN\DATA1\IP20032.69R

ANCASTER LABORATORIES

6532794ACF ABSWB23 T 12031008A 01216
C:\CPWIN\DATA1\IP20032.69R

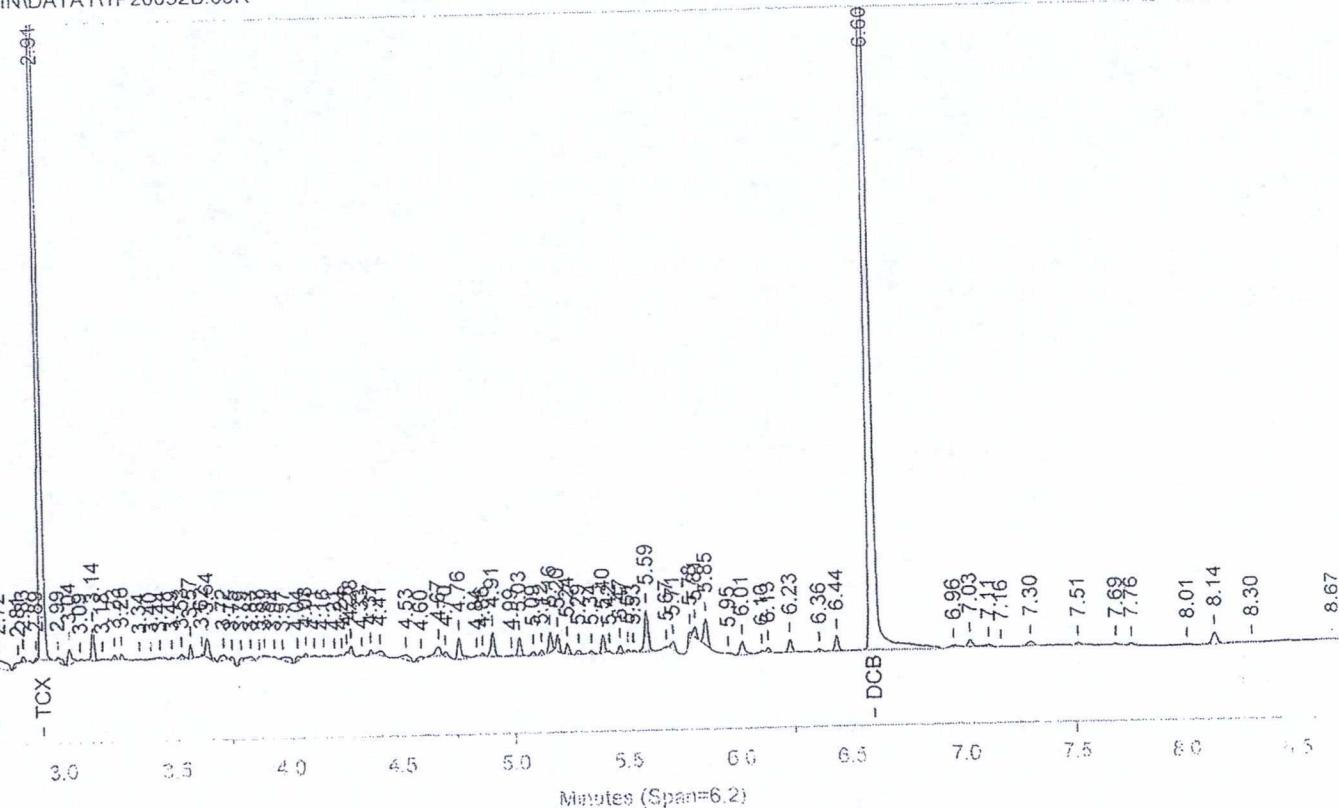


Instrument ID: CP08--17342A Injected On: 2/2/2012 12:23:47 PM

Column ID: ZB MULTITRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.69R

6532794ACF ABSWB23 T 12031008A 01216
C:\CPWIN\DATA1\IP20032B.69R



Instrument ID: CP08--17342B Injected On: 2/2/2012 12:23:47 PM

Column ID: ZB MULTITRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532795 ACF 49203 Sample ID: AB Batchnumber: 120310008A

Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 12:35:12

Instrument 17342A

Result file 1P20032.70R

Calibration file 1P20032

Method file PESTDB

%SSR(TCX) 88.5% Conc: 9.129312

%SSR(DCB) 128.0% Conc: 12.79684

Min	RT	Max	Height	Amount	Pks	%RSD	Peak
						29.47	
							Aroclor-1248
3.77	3.80	3.83	5126.623535	46.384373	1	3.68	3.71
3.94	3.97	4.00	9230.563477	98.61081	2	3.98	4.01
4.07	4.10	4.13	10002.65918	90.257483	3	4.23	4.26
4.17	4.19	4.23	9464.876953	94.732703	4	4.38	4.41

Height summation: 33824.723145

Concentration CF: 82.496342

L:

Aroclor-1260

4.88	4.91	4.94	27415.166016	176.491728	15.48
5.09	5.12	5.15	32088.945313	179.507529	
5.30	5.32	5.36	47377.296875	241.246533	
5.53	5.55	5.59	27787.605469	204.926064	
5.77	5.79	5.83	68601.320313	240.001037	
5.98	6.00	6.04	40294.445313	252.752721	

Height summation: 243564.779299

Concentration CF: 215.820935

L:

Analysis Report (B)

Injected on Feb 02, 2012 12:35:12

Instrument 17342B

Result file 1P20032B.70R

Calibration file 1P20032B

Method file PESTDB

%SSR(TCX) 90.0% Conc: 9.278416
%SSR(DCB) 114.6% Conc: 11.46066

Min	RT	Max	Height	Amount	Pks	%RSD	Peak
						39.99	Aroclor-1248

3.68	3.71	3.74	32710.572266	32.435558	1
3.98	4.01	4.04	77478.351563	63.966661	2
4.23	4.26	4.29	160766.89062	89.099319	3
4.38	4.41	4.44	77835.523438	92.497485	4

Height summation: 348791.337892

Concentration CF: 69.499756

L:

Aroclor-1260 17.51

4.73	4.76	4.79	307049.59375	169.24125	1
4.88	4.90	4.94	353306.09375	154.554937	2
5.00	5.02	5.06	327767.84375	178.06146	3
5.13	5.16	5.19	440109.75	219.531578	4
5.56	5.59	5.62	840330.75	221.666748	5
5.83	5.85	5.89	655592	240.865073	6

Height summation: 2924156.03125

Concentration CF: 197.320174

L:

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248	A	82.496342	17	3.3		17.10	4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260	A	215.820935	17	3.9		8.96	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Melissa A McDermott

Reviewed by: JWASH

Verified by: FEB 06 2012

Date: 2/6/12

Date: 2/6/12

Melissa A. McDermott
Senior Chemist

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532795 ACF 49203 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 12:35:12

Instrument : CP08-17342A

Result file : 1P20032.70R

Calibration file : 1P20032.CAL

Method file : PESTD.MET

%SSR(TCX) : 88.5% (53-139)

%SSR(DCB) : 128% (53-133)

Min	R.T.	Max	Height
-----	------	-----	--------

Aroclor-1016

3.24	3.27	3.30	97.160629
3.46	3.49	3.52	3391.424072
3.58	3.61	3.64	2798.797607
3.77	3.80	3.83	5126.623535
3.87	3.89	3.93	3722.072021
4.16	4.19	4.22	9464.876953

Height Summation: 24600.954817

Amount Avg CF: 37.276723

Aroclor-1221

3.20	3.21	3.26	672.911865
3.25	3.27	3.31	97.160629

Height Summation: 770.072494

Amount Avg CF: 7.691726

Aroclor-1232

3.25	3.27	3.31	97.160629
3.46	3.49	3.52	3391.424072
3.58	3.61	3.64	2798.797607
3.77	3.80	3.83	5126.623535
3.87	3.89	3.93	3722.072021
E 4.17	4.19	4.23	9464.876953

Height Summation: 24600.954817

Amount Avg CF: 69.065409

Aroclor-1242

3.25	3.27	3.31	97.160629
3.47	3.49	3.53	3391.424072
3.58	3.61	3.64	2798.797607
3.77	3.80	3.83	5126.623535
3.87	3.89	3.93	3722.072021
E 4.17	4.19	4.23	9464.876953

Height Summation: 24600.954817

Amount Avg CF: 41.99508

Aroclor-1248

3.77	3.80	3.83	5126.623535
3.94	3.97	4.00	9230.563477
+ 3.94	4.00	4.00	5892.901367
4.07	4.10	4.13	10002.65918
4.17	4.19	4.23	9464.876953
4.49	4.52	4.55	14993.476563
E 4.76	4.78	4.82	22391.15625

Height Summation: 71209.355958

Amount Avg CF: 127.267413

Aroclor-1254

4.49	4.52	4.55	14993.476563
4.76	4.78	4.82	22391.15625
4.98	5.00	5.04	9529.742188
E 5.09	5.12	5.15	32088.945313
5.18	5.21	5.24	19354.433594
E 5.30	5.32	5.36	47377.296875

Height Summation: 145735.050783

Amount Avg CF: 181.409438

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 12:35:12

Instrument : CP08-17342B

Result file : 1P20032B.70R

Calibration file : 1P20032B.CAL

Method file : PESTDB.MET

%SSR(TCX) : 90% (53-139)

%SSR(DCB) : 114.6% (53-133)

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
-----	------	-----	--------	--------	-----	------	------

Aroclor-1016 6 106.25

3.18	3.20	3.24	711.493103	0.862808	1
+ 3.18	3.23	3.24	13589.419922	16.479515	1
3.39	3.42	3.45	24357.560547	22.72973	2
+ 3.52	3.52	3.58	1297.336304	1.270573	3
3.52	3.55	3.58	20135.484375	19.720104	3
3.69	3.71	3.75	32710.572266	14.70651	4
+ 3.69	3.73	3.75	9507.172852	4.274377	4
3.80	3.83	3.86	28598.216797	23.930525	5
+ 3.80	3.86	3.86	83808.65625	70.129727	5
3.98	4.01	4.04	77478.351563	86.998981	6
+ 3.98	4.03	4.04	22687.248047	25.475083	6

Height Summation: 183991.678651

Amount Avg CF: 28.15811

Linear:

Aroclor-1221 3 159.11

3.06	3.08	3.12	786.711792	1.551378	1
3.12	3.14	3.18	13559.24707	36.792291	2
3.18	3.20	3.24	711.493103	0.566992	3
+ 3.18	3.23	3.24	13589.419922	10.829474	3

Height Summation: 15057.451965

Amount Avg CF: 12.97022

Linear:

Aroclor-1232 6 111.16

3.18	3.20	3.24	711.493103	0.625838	1
+ 3.18	3.23	3.24	13589.419922	11.953416	1
3.39	3.42	3.45	24357.560547	42.874726	2
3.52	3.55	3.58	20135.484375	38.205938	3
3.69	3.71	3.75	32710.572266	28.338876	4
+ 3.69	3.73	3.75	9507.172852	8.23656	4
3.80	3.83	3.86	28598.216797	46.969717	5
E+ 3.80	3.86	3.86	83808.65625	137.647354	5
E 3.98	4.01	4.04	77478.351563	177.804593	6
+ 3.98	4.03	4.04	22687.248047	52.064826	6

Height Summation: 183991.678651

Amount Avg CF: 55.803281

Linear:

Aroclor-1242 6 104.52

3.18	3.20	3.24	711.493103	1.005253	1
+ 3.18	3.23	3.24	13589.419922	19.200198	1
3.39	3.42	3.45	24357.560547	26.426634	2
3.52	3.55	3.58	20135.484375	23.042925	3
3.69	3.71	3.75	32710.572266	17.504313	4
+ 3.69	3.73	3.75	9507.172852	5.087546	4
3.81	3.83	3.87	28598.216797	28.802861	5
E+ 3.81	3.86	3.87	83808.65625	84.408378	5
E 3.98	4.01	4.04	77478.351563	99.499604	6
+ 3.98	4.03	4.04	22687.248047	29.135522	6

Height Summation: 183991.678651

Amount Avg CF: 32.713598

Linear:

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:25:05

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532795 ACF 49203 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 12:35:12
 Instrument : CP08-17342A
 Result file : 1P20032.B.70R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
	6				6	15.48		
Aroclor-1260					176.491728	1		
	4.88	4.91	4.94	27415.166016				
	5.09	5.12	5.15	32088.945313	179.507529	2		
	5.30	5.32	5.36	47377.296875	241.246533	3		
	5.53	5.55	5.59	27787.605469	204.926064	4		
	5.77	5.79	5.83	68601.320313	240.001037	5		
	5.98	6.00	6.04	40294.445313	252.752721	6		
Height Summation:				243564.779299				
Amount Avg CF:				215.820935				
Aroclor-1262					220.547573	1		
	E 4.88	4.91	4.94	27415.166016				
	E 5.09	5.12	5.15	32088.945313	226.929354	2		
	E 5.37	5.39	5.43	23830.816406	135.799734	3		
	E 5.77	5.79	5.83	68601.320313	212.007294	4		
	E 5.98	6.00	6.04	40294.445313	207.452031	5		
	E 6.41	6.43	6.47	21952.792969	187.702903	6		
Height Summation:				214183.486330				
Amount Avg CF:				198.406482				
Aroclor-1268					114.21328	1		
	E 5.97	6.00	6.03	40294.445313				
	6.03	6.05	6.09	17057.789063	57.393052	2		
	6.17	6.19	6.23	4238.725098	16.082276	3		
	E 6.23	6.28	6.29	8687.460938	113.339347	4		
	E 6.41	6.43	6.47	21952.792969	172.58485	5		
	6.61	6.63	6.67	15337.001953	21.018085	6		
Height Summation:				107568.215334				
Amount Avg CF:				82.438482				

Linear:

	6	16.87	
			1
			2
			3
			4
			5
			6

Linear:

	6	74.57	
			1
			2
			3
			4
			5
			6

Linear:

	6	17.51	
			1
			2
			3
			4
			5
			6

Linear:

	6	26.82	
			1
			2
			3
			4
			5
			6

Linear:

	6	101.14	
			1
			2
			3
			4
			5
			6

Linear:

	6	20.55013	
			1
			2
			3
			4
			5
			6

Linear:

	6	154.554937	
			1
			2
			3
			4
			5
			6

Linear:

	6	154.079775	
			1
			2
			3
			4
			5
			6

Linear:

	6	219.531578	
			1
			2
			3
			4
			5
			6

Linear:

	6	116.184831	
			1
			2
			3
			4
			5
			6

Linear:

	6	221.666748	
			1
			2
			3
			4
			5
			6

Linear:

	6	240.865073	
			1
			2
			3
			4
			5
			6

Linear:

	6	198.347427	
			1
			2
			3
			4
			5
			6

Linear:

	6	222.692264	
			1
			2
			3
			4
			5
			6

Linear:

	6	117.857592	
			1
			2
			3
			4
			5
			6

Linear:

	6	143.993822	
			1
			2
			3
			4
			5
			6

Linear:

	6	15.326261	
			1
			2
			3
			4
			5
			6

Linear:

	6	145.3977.955079	
			1
			2
			3
			4
			5
			6

Linear:

	6	57.982186	
			1

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532795 ACF 49203 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 12:35:12
 Instrument : CP08-17342A
 Result file : 1P20032.70R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

Analysis Report (B)

Injected on : FEB 02, 2012 12:35:12
 Instrument : CP08-17342B
 Result file : 1P20032B.70R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Summary Report

Compound Name

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1221			17	3.3		** 51.09	3	40	
Aroclor-1232			17	3.3	E	21.24	4	40	
Aroclor-1242			17	3.3	E	24.85	4	40	
Aroclor-1248			17	3.3	E	28.05	4	40	
Aroclor-1254			17	3.3	E	** 71.38	4	40	
Aroclor-1260			17	3.9		8.96	4	40	
Aroclor-1262			0	0	E	19.63	4	40	
Aroclor-1268			0	0	E	34.83	4	40	
Total PCBs			0	0					

Units: ug/kg

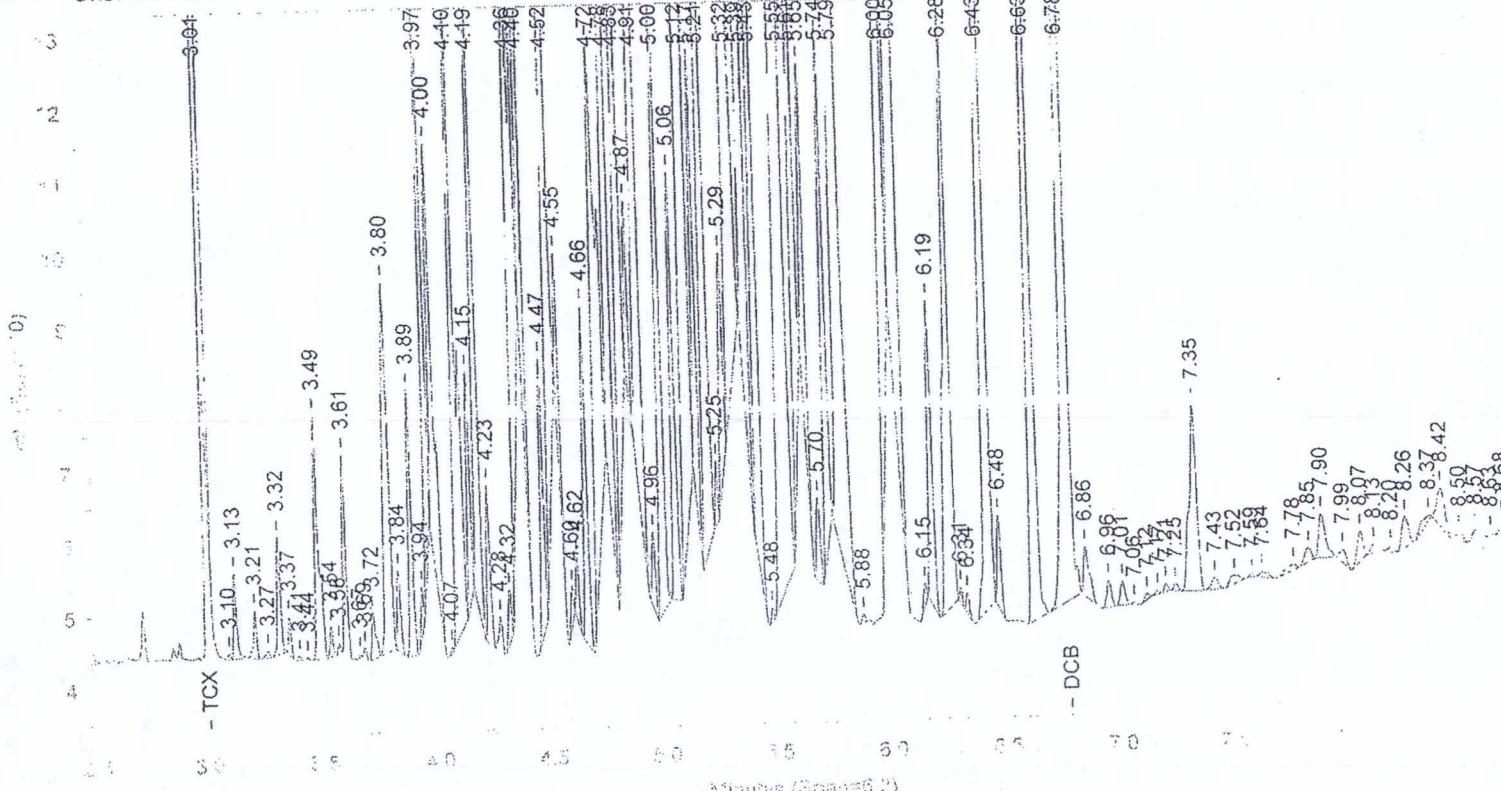
Page 1

532795ACF AB49203 T 120310008A 01216

File: C:\CPWIN\DATA1\IP20032.70R

ANCASTER LABORATORIES

6532795ACF AB49203 T 120310008A 01216
C:\CPWIN\DATA1\1P20032.70R

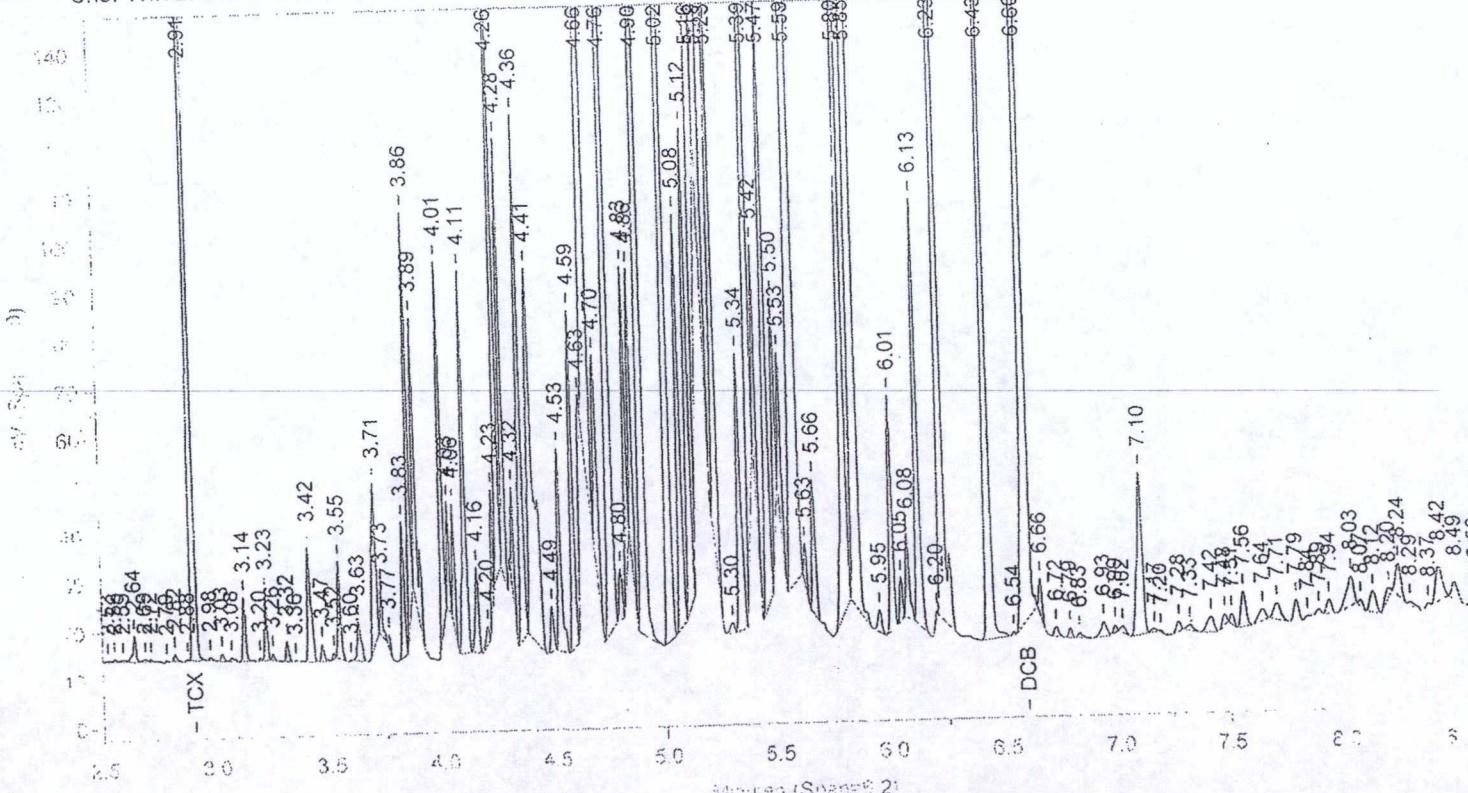


Instrument ID: CP08--17342A Injected On: 2/2/2012 12:35:11 PM

Column ID: ZB MULTIRES 30M X .32MM X .5UM

SEARCHED AND INDEXED B20032B 70B

6532795ACF AB49203 T 120310008A 01216
C:\CPWIN\DATA1\1P20032B.70R



Instrument ID: CP08--17342B Injected On: 2/2/2012 12:35:11 PM

Column ID: ZB MULTIRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532799 ACF 49303 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 13:21:07
 Instrument 17342A
 Result file 1P20032.74R
 Calibration file 1P20032
 Method file PESTD
 %SSR(TCX) 92.9% Conc: 9.582941
 %SSR(DCB) 108.9% Conc: 10.88771

Min	RT	Max	Height	Amount	Pks	%RSD	Peak
						30.93	

Aroclor-1248
 3.94 3.97 4.00 4475.466309 47.811746 2
 4.07 4.10 4.13 5577.604004 50.328666 3
 4.17 4.19 4.23 6733.043457 67.390142 4
 4.49 4.52 4.55 11925.170898 90.806555 5

Height summation: 28711.284668
 Concentration CF: 64.084277

Aroclor-1260
 4.88 4.91 4.94 43635.683594 280.915212 1
 5.09 5.12 5.15 47587.089844 266.2051 2
 5.30 5.33 5.36 58646.140625 298.627803 3
 5.53 5.56 5.59 46220.824219 340.86606 4
 5.77 5.80 5.83 107476.64843 376.005985 5
 5.98 6.00 6.04 60228.011719 377.788891 6

Height summation: 363794.398439
 Concentration CF: 323.401509

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<17	<3.3			4	40	
Aroclor-1221			<17	<3.3			3	40	
Aroclor-1232			<17	<3.3			4	40	
Aroclor-1242			<17	<3.3			4	40	
Aroclor-1248	A	64.084277	17	3.3		27.70	4	40	
Aroclor-1254			<17	<3.3			4	40	
Aroclor-1260	A	323.401509	17	3.9		20.69	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: Melissa

Verified by: FEB 06 2012

Date: 2/06/12

Date: Melissa A. McDermott
 Senior Chemist

Melissa A. McDermott

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532799ACF

49303

Sample ID: AB

Batchnumber: 120310008A

Sample Amount: 30 g

Total Volume: 10 ml

Analyst: 2855

SDG:

State: WA

Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08-17342A
 Result file : 1P20032.74R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

%SSR(TCX) : 92.9% (53-139) Conc.: 9.582941
 %SSR(DCB) : 108.9% (53-133) Conc.: 10.887714

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1016					6	74.85	
3.24	3.27	3.30	68.368462	0.707603		1	
3.46	3.49	3.52	1319.421753	11.407801		2	
3.58	3.61	3.64	4462.310547	37.928949		3	
3.77	3.80	3.83	16034.380859	70.840196		4	
3.87	3.90	3.93	7136.873535	61.160131		5	
4.16	4.19	4.22	6733.043457	81.805411		6	

Height Summation: 35754.398613

Amount Avg CF: 43.975015

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1016					6	72.53	
3.18	3.21	3.24	416.065918	0.504552		1	

+ 3.18 3.23 3.24 7481.099609 9.072123 1

3.39 3.42 3.45 9989.783203 9.32216 2

+ 3.52 3.52 3.58 1191.397949 1.16682 3

3.52 3.55 3.58 34116.25 33.412457 3

3.69 3.71 3.75 132862.51562 59.734323 4

3.80 3.83 3.86 57263.722656 47.917356 5

3.98 4.01 4.04 53173.882813 59.707951 6

+ 3.98 4.04 4.04 19826.986328 22.263349 6

Height Summation: 287822.220215

Amount Avg CF: 35.0998

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1221					6	154.51	
3.06	3.08	3.12	440.908905	0.869463		1	

3.12 3.14 3.18 5682.371094 15.41881 2

3.18 3.21 3.24 416.065918 0.331565 3

+ 3.18 3.23 3.24 7481.099609 5.961724 3

Height Summation: 6539.345917

Amount Avg CF: 5.539946

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1232					6	73.74	
3.25	3.27	3.31	68.368462	0.538122		1	

3.46 3.49 3.52 21.287863 1

E 3.58 3.61 3.64 70.228369 2

E 3.77 3.80 3.83 134.443306 3

E 3.87 3.90 3.93 115.848933 5

E 4.17 4.19 4.23 150.425457 6

Height Summation: 35754.398613

Amount Avg CF: 82.128675

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1242					6	73.73	
3.25	3.27	3.31	68.368462	0.830067		1	

3.47 3.49 3.53 12.969839 2

3.58 3.61 3.64 45.094341 3

E 3.77 3.80 3.83 85.936066 4

E 3.87 3.90 3.93 73.731841 5

E 4.17 4.19 4.23 87.669837 6

Height Summation: 35754.398613

Amount Avg CF: 51.038665

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1248					6	72.52	
3.77	3.80	3.83	16034.380859	145.074959		1	

3.94 3.97 4.00 47.811746~ 2

+ 3.94 4.00 4.00 51.172914 2

4.07 4.10 4.13 50.328666~ 3

+ 4.07 4.12 4.13 16.728344 3

4.17 4.19 4.23 67.390142~ 4

4.49 4.52 4.55 90.806555~ 5

4.76 4.78 4.82 176.147322 6

Height Summation: 57092.395019

Amount Avg CF: 96.259898

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1254					6	99.68	
4.49	4.52	4.55	11925.170898	71.22354		1	

4.76 4.78 4.82 60.034258 2

4.98 5.01 5.04 30.970106 3

E 5.09 5.12 5.15 556.828142 4

5.18 5.21 5.24 175.850231 5

E 5.30 5.33 5.36 371.683878 6

Height Summation: 157548.072754

Amount Avg CF: 211.098359

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08-17342B
 Result file : 1P20032B.74R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

%SSR(TCX) : 90.8% (53-139) Conc.: 9.361139
 %SSR(DCB) : 95.5% (53-133) Conc.: 9.546412

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1016					6	72.53	
3.18	3.21	3.24	416.065918	0.504552		1	

+ 3.18 3.23 3.24 7481.099609 9.072123 1

3.39 3.42 3.45 9989.783203 9.32216 2

+ 3.52 3.52 3.58 1191.397949 1.16682 3

3.52 3.55 3.58 34116.25 33.412457 3

3.69 3.71 3.75 132862.51562 59.734323 4

3.80 3.83 3.86 57263.722656 47.917356 5

3.98 4.01 4.04 53173.882813 59.707951 6

+ 3.98 4.04 4.04 19826.986328 22.263349 6

Height Summation: 287822.220215

Amount Avg CF: 35.0998

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1221					3	154.51	
3.06	3.08	3.12	440.908905	0.869463		1	

3.12 3.14 3.18 5682.371094 15.41881 2

3.18 3.21 3.24 416.065918 0.331565 3

+ 3.18 3.23 3.24 7481.099609 5.961724 3

3.39 3.42 3.45 9989.783203 17.584241 2

+ 3.52 3.52 3.58 1191.397949 2.26061 3

3.52 3.55 3.58 34116.25 64.733646 3

E 3.69 3.71 3.75 132862.51562 115.10573 4

E 3.80 3.83 3.86 57263.722656 94.04995 5

E 3.98 4.01 4.04 53173.882813 122.028417 6

+ 3.98 4.04 4.04 19826.986328 45.500829 6

Height Summation: 287822.220215

Amount Avg CF: 68.977994

Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1242					6	72.52	
3.18	3.21	3.24	416.065918	0.587851		1	

+ 3.18 3.23 3.24 7481.099609 10.569884 1

3.39 3.42 3.45 9989.783203 10.838374 2

+ 3.52 3.52 3.58 1191.397949 1.363429 3

3.52 3.55 3.58 34116.25 39.042428 3

E 3.69 3.71 3.75 132862.51562 71.09833 4

E 3.81 3.83 3.87 57263.722656 57.673493 5

E 3.98 4.01 4.04 53173.882813 68.287208 6

+ 3.98 4.04 4.04 19826.986328 25.462303 6

Height Summation: 287822.220215

Amount Avg CF: 41.254614

Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:26:00

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532799ACF 49303 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG: State: WA
 Analyses:01216

Analysis Report (A)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08--17342A
 Result file : 1P20032.74R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260	6	14.97			280.915212	1		
E 4.88	4.91	4.94	43635.683594		266.2051	2		
5.09	5.12	5.15	47587.089844		298.627803	3		
E 5.30	5.33	5.36	58646.140625		340.86606	4		
E 5.53	5.56	5.59	46220.824219		376.005985	5		
E 5.77	5.80	5.83	107476.64843		377.788891	6		
E 5.98	6.00	6.04	60228.011719					
Height Summation:			363794.398439					
Amount Avg CF:			323.401509					

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262	6	13.78			351.037236	1		
E 4.88	4.91	4.94	43635.683594		336.530461	2		
E 5.09	5.12	5.15	47587.089844		244.716629	3		
E 5.37	5.39	5.43	42944.097656		332.148614	4		
E 5.77	5.80	5.83	107476.64843		310.078059	5		
E 5.98	6.00	6.04	60228.011719		266.927918	6		
E 6.41	6.44	6.47	31218.554688					
Height Summation:			333090.085939					
Amount Avg CF:			306.906486					

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268	6	111.14			170.714319	1		
E 5.97	6.00	6.03	60228.011719		77.40687	2		
E 6.03	6.06	6.09	23006.095703		9.454871	3		
6.17	6.19	6.23	2491.973145		14.722025	4		
6.23	6.25	6.29	1128.443237		144.793565	4		
E+ 6.23	6.28	6.29	11098.426758		245.428889	5		
E 6.41	6.44	6.47	31218.554688		14.742935	6		
E 6.61	6.64	6.67	10757.993164					
Height Summation:			128831.071656					
Amount Avg CF:			88.744985					

Linear: 6 111.14

Height Summation: 898782.855469

Amount Avg CF: 76.108623

Linear: 6 13.14

Height Summation: 3839694.062500

Amount Avg CF: 262.760981

Linear: 6 18.55

Height Summation: 3831733.000000

Amount Avg CF: 242.154405

Linear: 6 117.49

Height Summation: 1778987.824219

Amount Avg CF: 75.60725

Linear: 6 117.49

Analysis Report (B)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08--17342B
 Result file : 1P20032B.74R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1248	7	102.24			131.745472	1		
3.68	3.71	3.74	132862.51562		43.900724	2		
3.98	4.01	4.04	53173.882813		16.369297	2		
+ 3.98	4.04	4.04	19826.986328		17.063251	3		
4.23	4.23	4.29	30788.179688		57.743364	3		
4.23	4.26	4.29	104189.58593		34.60406	3		
+ 4.23	4.29	4.29	62438.042969		43.840388	4		
4.38	4.41	4.44	36891.160156		31.16259	4		
+ 4.38	4.44	4.44	26222.945313		255.827076	5		
4.63	4.67	4.69	220957.07812		30.109747	6		
4.81	4.84	4.87	18945.763672		128.659736	6		

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1254	6	117.37			78054.757813	1		
4.34	4.37	4.40	24716.958984		16.432238	2		
4.57	4.59	4.63	220957.07812		88.812963	3		
4.63	4.67	4.69	18945.763672		10.371647	4		
+ 4.81	4.86	4.87	80955.742188		44.318319	4		
5.05	5.08	5.11	63300.671875		47.366525	5		
5.14	5.16	5.20	492807.625		249.356997	6		
+ 5.14	5.19	5.20	453377.28125		229.405536	6		

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260	6	13.14			460647.5	1		
4.73	4.76	4.79	234.8733		536910.5	2		
4.88	4.91	4.94	250.544301		5.00	3		
5.02	5.06	5.06	245.817856		5.13	4		
5.16	5.19	5.19	260.371939		5.56	5		
5.20	5.20	5.20	331.056316		5.83	6		

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262	6	18.55			305.842247	1		
E 4.88	4.91	4.94	536910.5		264.948447	2		
E 5.00	5.02	5.06	461191.125		199.020685	3		
E 5.17	5.19	5.23	453377.28125		206.78253	4		
E 5.37	5.40	5.43	492116.78125		13.754222	4		
+ 5.37	5.42	5.43	32733.341797		987060.75	5		
E 5.56	5.59	5.62	901076.5625		203.714464	5		
E 5.83	5.85	5.89	272.618058		8.879143	6		

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1268	6	117.49			57.51196	1		
5.78	5.81	5.84	319410.5		164.108551	2		
E 5.83	5.85	5.89	901076.5625		5.337968	3		
5.98	6.01	6.04	23234.572266		9.686349	4		
6.05	6.08	6.11	10570.955078		208.119526	5		
E 6.21	6.23	6.27	393283.46875		7.025703	5		
+ 6.21	6.27	6.27	13276.47168		8.879143	6		
6.41	6.44	6.47	131411.76562					

Height Summation: 1778987.824219

Amount Avg CF: 75.60725

Linear: 6 117.49

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			17	3.3		22.45	4	40	

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:26:00

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532799 ACF 49303 Sample ID: AB Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 10 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08-17342A
 Result file : 1P20032.74R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1221			17	3.3		35.66	3	40	
Aroclor-1232			17	3.3	E	17.41	4	40	
Aroclor-1242			17	3.3	E	21.20	4	40	
Aroclor-1248			17	3.3		14.93	4	40	
Aroclor-1254			17	3.3	E	** 94.00	4	40	
Aroclor-1260			17	3.9	E	20.69	4	40	
Aroclor-1262			0	0	E	23.59	4	40	
Aroclor-1268			0	0	E	15.99	4	40	
Total PCBs			0	0					

Units: ug/kg

Analysis Report (B)

Injected on : FEB 02, 2012 13:21:07
 Instrument : CP08-17342B
 Result file : 1P20032B.74R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

* Peak found within more than one window

+Duplicate Peak in window - not included in average

Printed on: 2/2/12 20:26:00

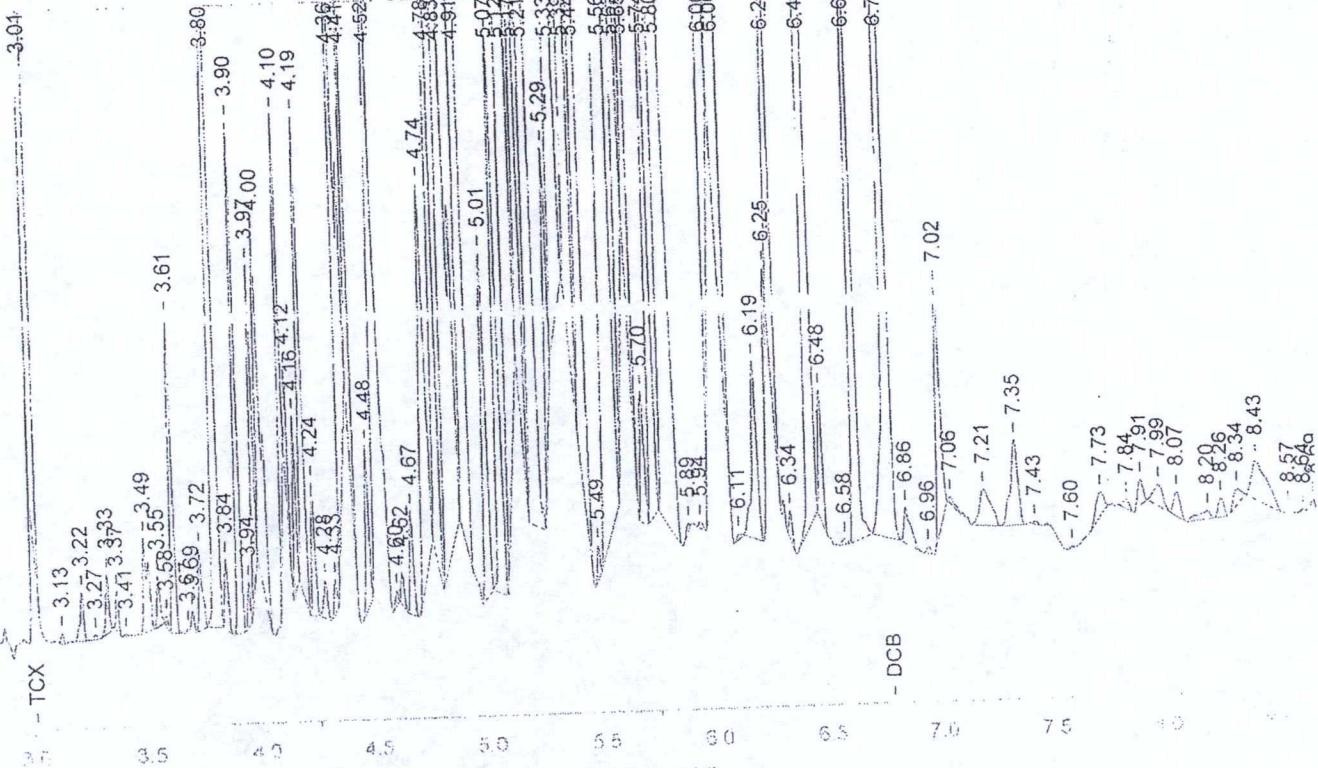
6532799ACF AB49303 T 120310008A 01216

File: C:\CPWIN\DATA1\IP20032.74R

ANCASTER LABORATORIES

6532799ACF AB49303 T 120310008A 01216

C:\CPWIN\DATA1\IP20032.74R



Instrument ID: CP08--17342A Injected On: 2/2/2012 1:21:06 PM

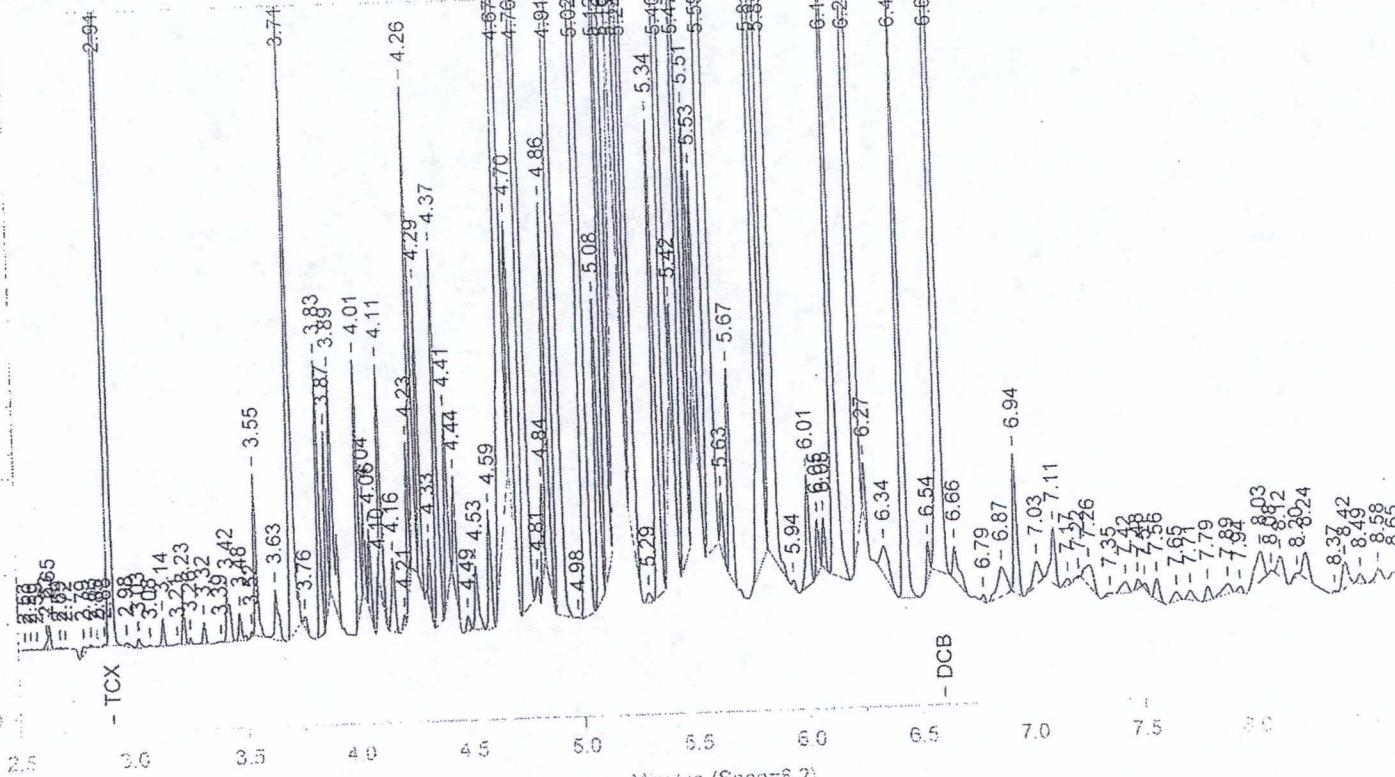
Minutes (Span=6.2)

Column ID: ZB MULTIRE 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.74R

6532799ACF AB49303 T 120310008A 01216

C:\CPWIN\DATA1\IP20032B.74R



Instrument ID: CP08--17342B Injected On: 2/2/2012 1:21:06 PM

Minutes (Span=6.2)

Column ID: ZB MULTIRE2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532802 ACF DF5 49402 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 50 ml Analyst: 0120 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 13:55:37
 Instrument 17342A
 Result file 1P20032.77R
 Calibration file 1P20032
 Method file PESTD
 %SSR(TCX) 99.5% Conc: 10.26141
 %SSR(DCB) 72.0% Conc: 7.204691

	Min	RT	Max	Height	Amount	Pks	%RSD	Peak		Min	RT	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260							4.50		Aroclor-1260							4.85	
5.09	5.12	5.15	46219.300781	1292.768019		2			4.88	4.91	4.94	515309.78125	1127.119967			2	
5.30	5.33	5.36	52620.441406	1339.723865		3			5.00	5.02	5.06	463323.5	1258.513618			3	
5.53	5.56	5.59	35807.910156	1320.368196		4			5.13	5.16	5.19	489771	1221.515773			4	
5.77	5.80	5.83	77980.992188	1364.078627		5			5.56	5.59	5.62	953428.3125	1257.50101			5	
5.98	6.01	6.04	38631.300781	1211.602033		6			5.83	5.85	5.89	633239	1163.262808			6	
Height summation: 251259.945312								Height summation: 3055071.59375									
Concentration CF: 1305.708148				L:				Concentration CF: 1205.582635								L:	

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<85	<16.5			4	40	
Aroclor-1221			<85	<16.5			3	40	
Aroclor-1232			<85	<16.5			4	40	
Aroclor-1242			<85	<16.5			4	40	
Aroclor-1248			<85	<16.5			4	40	
Aroclor-1254			<85	<16.5			4	40	
Aroclor-1260	A	1305.708148	85	19.5		7.97	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: MAG

Date: 2/6/12

Verified by: _____

Date: FEB 06 2012

Melissa A. McDermott
Senior Chemist

Melissa A. McDermott

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532802 ACF DF5 49402 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 50 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 13:55:37
 Instrument : CP08-17342A
 Result file : 1P20032.77R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET
 %SSR(TCX) : 99.5% (53-139) Conc.: 10.261415
 %SSR(DCB) : 72% (53-133) Conc.: 7.204691

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	165.62		
Aroclor-1016							
3.24	3.27	3.30	15.554531	0.804935	1		
3.46	3.49	3.52	191.191498	8.265267	2		
+ 3.58	3.59	3.64	29.654734	1.260303	3		
3.58	3.61	3.64	168.433228	7.158282	3		
3.77	3.80	3.83	698.189819	15.423079	4		
3.87	3.90	3.93	424.127106	18.172992	5		
4.16	4.19	4.22	2171.079346	131.89135	6		
Height Summation:				3668.575528			
Amount Avg CF:				30.285984			

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	132.64		
Aroclor-1221							
3.20	3.22	3.26	157.714951	17.219669	2		
3.25	3.27	3.31	15.554531	0.551873	3		
Height Summation:				173.269482			
Amount Avg CF:				8.885771			

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	164.90		
Aroclor-1232							
3.25	3.27	3.31	15.554531	0.612142	4		
3.46	3.49	3.52	191.191498	15.423645	1		
+ 3.58	3.59	3.64	29.654734	2.333548	2		
3.58	3.61	3.64	168.433228	13.25411	2		
3.77	3.80	3.83	698.189819	29.270524	3		
3.87	3.90	3.93	424.127106	34.423107	5		
4.17	4.19	4.23	2171.079346	242.524502	6		
Height Summation:				3668.575528			
Amount Avg CF:				55.918005			

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	159.50		
Aroclor-1242							
3.25	3.27	3.31	15.554531	0.944244	1		
3.47	3.49	3.53	191.191498	9.397007	2		
+ 3.58	3.59	3.64	29.654734	1.498395	3		
3.58	3.61	3.64	168.433228	8.510597	3		
3.77	3.80	3.83	698.189819	18.709699	4		
3.87	3.90	3.93	424.127106	21.908523	5		
4.17	4.19	4.23	2171.079346	141.346312	6		
Height Summation:				3668.575528			
Amount Avg CF:				33.469397			

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	116.29		
Aroclor-1248							
3.77	3.80	3.83	698.189819	31.585211	1		
3.94	3.97	4.00	1943.329102	103.803661	2		
+ 3.94	4.00	4.00	979.7146	52.331827	2		
4.07	4.10	4.13	1073.888672	48.45036	3		
+ 4.07	4.12	4.13	294.381012	13.281513	3		
4.17	4.19	4.23	2171.079346	108.650231	4		
4.49	4.52	4.55	11975.702148	455.956678	5		
4.76	4.79	4.82	10502.492188	749.180533	6		
Height Summation:				28364.681275			
Amount Avg CF:				249.604446			

Analysis Report (B)

Injected on	: FEB 02, 2012 13:55:37		
Instrument	: CP08-17342B		
Result file	: 1P20032B.77R		
Calibration file	: 1P20032B.CAL		
Method file	: PESTDB.MET		
%SSR(TCX)	: 94% (53-139)		
%SSR(DCB)	: 98.4% (53-133)		
Conc.:	9.697943		
Conc.:	9.837798		
Min	R.T.	Max	Height
Aroclor-1016			
3.18	3.23	3.24	5200.515625
3.39	3.42	3.45	1528.963623
+ 3.52	3.53	3.58	380.729553
3.52	3.55	3.58	1806.508667
3.69	3.71	3.75	5280.149414
3.80	3.83	3.86	3508.790527
3.98	4.01	4.04	10233.733398
+ 3.98	4.04	4.04	3668.591553
Height Summation:			
27558.661254			
Amount Avg CF:			
21.919867			
Linear:			
Aroclor-1221			
3.06	3.08	3.12	339.184448
3.12	3.14	3.18	1759.901978
3.18	3.23	3.24	5200.515625
Height Summation:			
7299.602051			
Amount Avg CF:			
15.980967			
Linear:			
Aroclor-1232			
3.18	3.23	3.24	5200.515625
3.39	3.42	3.45	1528.963623
+ 3.52	3.53	3.58	380.729553
3.52	3.55	3.58	1806.508667
3.69	3.71	3.75	5280.149414
3.80	3.83	3.86	3508.790527
3.98	4.01	4.04	10233.733398
+ 3.98	4.04	4.04	3668.591553
Height Summation:			
27558.661254			
Amount Avg CF:			
37.096782			
Linear:			
Aroclor-1242			
3.18	3.23	3.24	5200.515625
3.39	3.42	3.45	1528.963623
+ 3.52	3.53	3.58	380.729553
3.52	3.55	3.58	1806.508667
3.69	3.71	3.75	5280.149414
3.81	3.83	3.87	3508.790527
3.98	4.01	4.04	10233.733398
+ 3.98	4.04	4.04	3668.591553
Height Summation:			
27558.661254			
Amount Avg CF:			
25.479799			
Linear:			
Aroclor-1248			
3.68	3.71	3.74	5280.149414
3.98	4.01	4.04	10233.733398
+ 3.98	4.04	4.04	3668.591553
+ 4.23	4.23	4.29	5044.53418
4.23	4.26	4.29	92099
4.23	4.29	4.29	17232.826172
4.38	4.41	4.44	17031.417969
+ 4.63	4.64	4.69	9994.606445
4.63	4.67	4.69	227937.70312
4.81	4.84	4.87	21249.167969
+ 4.81	4.86	4.87	77771.398438
Height Summation:			
391063.998047			
Amount Avg CF:			
280.141074			
Linear:			

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Dated on: 02/02/2012 13:55:37

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532802 ACF DF5 49402 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 50 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 13:55:37
 Instrument : CP08-17342A
 Result file : 1P20032.B.77R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	99.88		
Aroclor-1254								
	4.49	4.52	4.55	11975.702148	357.626697	1		
	4.76	4.79	4.82	10502.492188	255.33455	2		
	4.98	5.01	5.04	4808.247559	153.944712	3		
E	5.09	5.12	5.15	46219.300781	2704.116543	4		
	5.18	5.21	5.24	22592.650391	894.544449	5		
E	5.30	5.33	5.36	52620.441406	1667.472872	6		
Height Summation:				148718.834473				
Amount Avg CF:				1005.506637				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	4.73		
Aroclor-1260								
	E 4.88	4.91	4.94	43134.566406	1388.445749	1		
	E 5.09	5.12	5.15	46219.300781	1292.768019	2		
	5.30	5.33	5.36	52620.441406	1339.723865	3		
	5.53	5.56	5.59	35807.910156	1320.368196	4		
	5.77	5.80	5.83	77980.992188	1364.078627	5		
	5.98	6.01	6.04	38631.300781	1211.602033	6		
Height Summation:				294394.511718				
Amount Avg CF:				1319.497748				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	31.47		
Aroclor-1262								
	E 4.88	4.91	4.94	43134.566406	1735.02942	1		
	E 5.09	5.12	5.15	46219.300781	1634.288066	2		
	E 5.37	5.39	5.43	33286.304688	948.408829	3		
	E 5.77	5.80	5.83	77980.992188	1204.972374	4		
	E 5.98	6.01	6.04	38631.300781	994.447468	5		
	E 6.41	6.44	6.47	18753.470703	801.738733	6		
Height Summation:				258005.935547				
Amount Avg CF:				1219.814148				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	84.51		
Aroclor-1268								
	E 5.97	6.01	6.03	38631.300781	547.495759	1		
	6.03	6.06	6.09	14004.740234	235.603449	2		
	6.17	6.19	6.23	1086.598389	20.61348	3		
	E 6.23	6.28	6.29	8766.109375	571.827096	4		
	E 6.41	6.44	6.47	18753.470703	737.164729	5		
	6.61	6.64	6.67	5236.200684	35.878887	6		
Height Summation:				86478.420166				
Amount Avg CF:				358.097233				

Linear:
 Height Summation:
 Amount Avg CF:

Analysis Report (B)

Injected on : FEB 02, 2012 13:55:37
 Instrument : CP08-17342B
 Result file : 1P20032.B.77R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	111.11		
Aroclor-1254								
	4.34	4.37	4.40	115090.42968	326.681838	1		
	4.57	4.59	4.63	28113.451172	93.45141	2		
	+ 4.63	4.64	4.69	9994.606445	20.086494	3		
	4.63	4.67	4.69	227937.70312	458.094011	3		
	4.81	4.84	4.87	21249.167969	58.163102	4		
	+ 4.81	4.86	4.87	77771.398438	212.875429	4		
	5.05	5.08	5.11	52589.292969	196.75716	5		
	5.14	5.16	5.20	489771	1239.102438	6		
Height Summation:				934751.044923				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	6.74		
Aroclor-1260								
	E 4.73	4.76	4.79	494790	1363.605096	1		
	4.88	4.91	4.94	515309.78125	1127.119967	2		
	5.00	5.02	5.06	463323.5	1258.513618	3		
	5.13	5.16	5.19	489771	1221.515773	4		
	5.56	5.59	5.62	953428.3125	1257.50101	5		
	5.83	5.85	5.89	633239	1163.262808	6		
Height Summation:				3549861.593750				
Amount Avg CF:				1231.919712				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	25.89		
Aroclor-1262								
	E 4.88	4.91	4.94	515309.78125	1467.688764	1		
	E 5.00	5.02	5.06	463323.5	1330.867347	2		
	E 5.17	5.20	5.23	355382	780.01669	3		
	E 5.37	5.40	5.43	405037.75	850.963979	4		
	+ 5.37	5.42	5.43	23940.109375	50.296968	4		
	E 5.56	5.59	5.62	953428.3125	983.866181	5		
	E 5.83	5.85	5.89	633239	957.922966	6		
Height Summation:				3325720.343750				
Amount Avg CF:				1061.887655				

	Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
					6	118.36		
Aroclor-1268								
	5.78	5.81	5.84	208143.54687	187.38807	1		
	E 5.83	5.85	5.89	633239	576.6432	2		
	5.98	6.01	6.04	10062.539063	11.558962	3		
	6.05	6.08	6.11	5551.353027	25.434005	4		
	E 6.21	6.23	6.27	230428.625	609.696314	5		
	6.41	6.44	6.47	62396.21875	21.079732	6		
Height Summation:				1149821.282715				
Amount Avg CF:				238.633381				

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			85	16.5		32.05	4	40	
Aroclor-1221			85	16.5		** 57.07	3	40	
Aroclor-1232			85	16.5		** 40.47	4	40	
Aroclor-1242			85	16.5		27.11	4	40	
Aroclor-1248			85	16.5		11.53	4	40	
Aroclor-1254			85	16.5	E	** 87.11	4	40	
Aroclor-1260			85	19.5	E	6.87	4	40	
Aroclor-1262		0	0	E		13.84	4	40	
Aroclor-1268		0	0	E		** 40.04	4	40	

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532802 ACF DF5 49402 Sample ID: AC Batchnumber: 120310008A
Sample Amount: 30 g Total Volume: 50 ml Analyst: 2855 SDG: State: WA
Analyses:01216

Analysis Report (A)

Injected on : FEB 02, 2012 13:55:37
Instrument : CP08-17342A
Result file : 1P20032.77R
Calibration file : 1P20032.CAL
Method file : PESTD.MET

Analysis Report (B)

Injected on : FEB 02, 2012 13:55:37
Instrument : CP08-17342B
Result file : 1P20032B.77R
Calibration file : 1P20032B.CAL
Method file : PESTDB.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Total PCBs			0	0					

Units: ug/kg

* Peak found within more than one window
+Duplicate Peak in window - not included in average

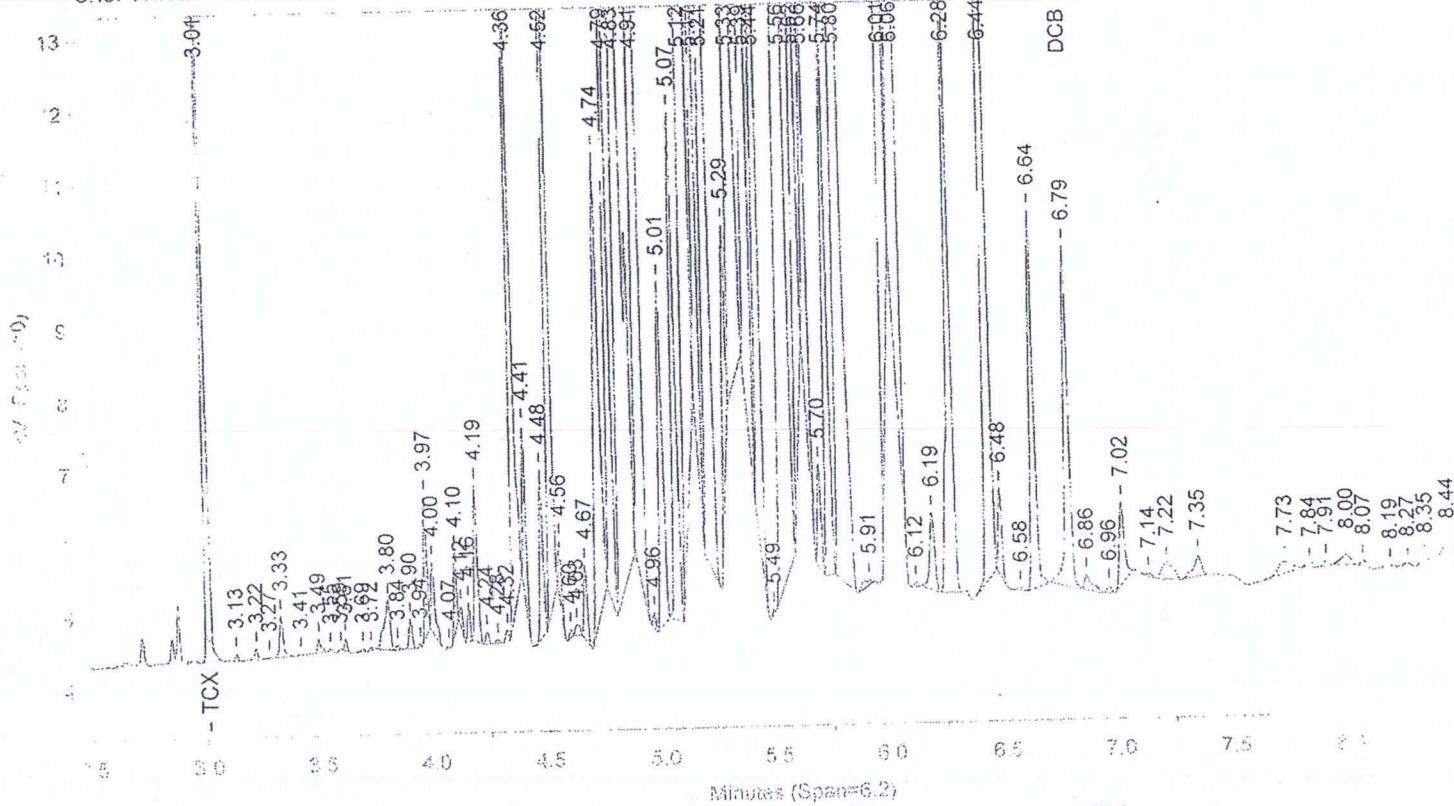
Printed on: 2/2/12 20:26:44

6532802ACF DF5 AC49402 T 120310008A 01216

File: C:\CPWIN\DATA1\1P20032.77R

LANCASTER LABORATORIES

6532802ACF DF5 AC49402 T 120310008A 01216
C:\CPWIN\DATA1\1P20032.77R

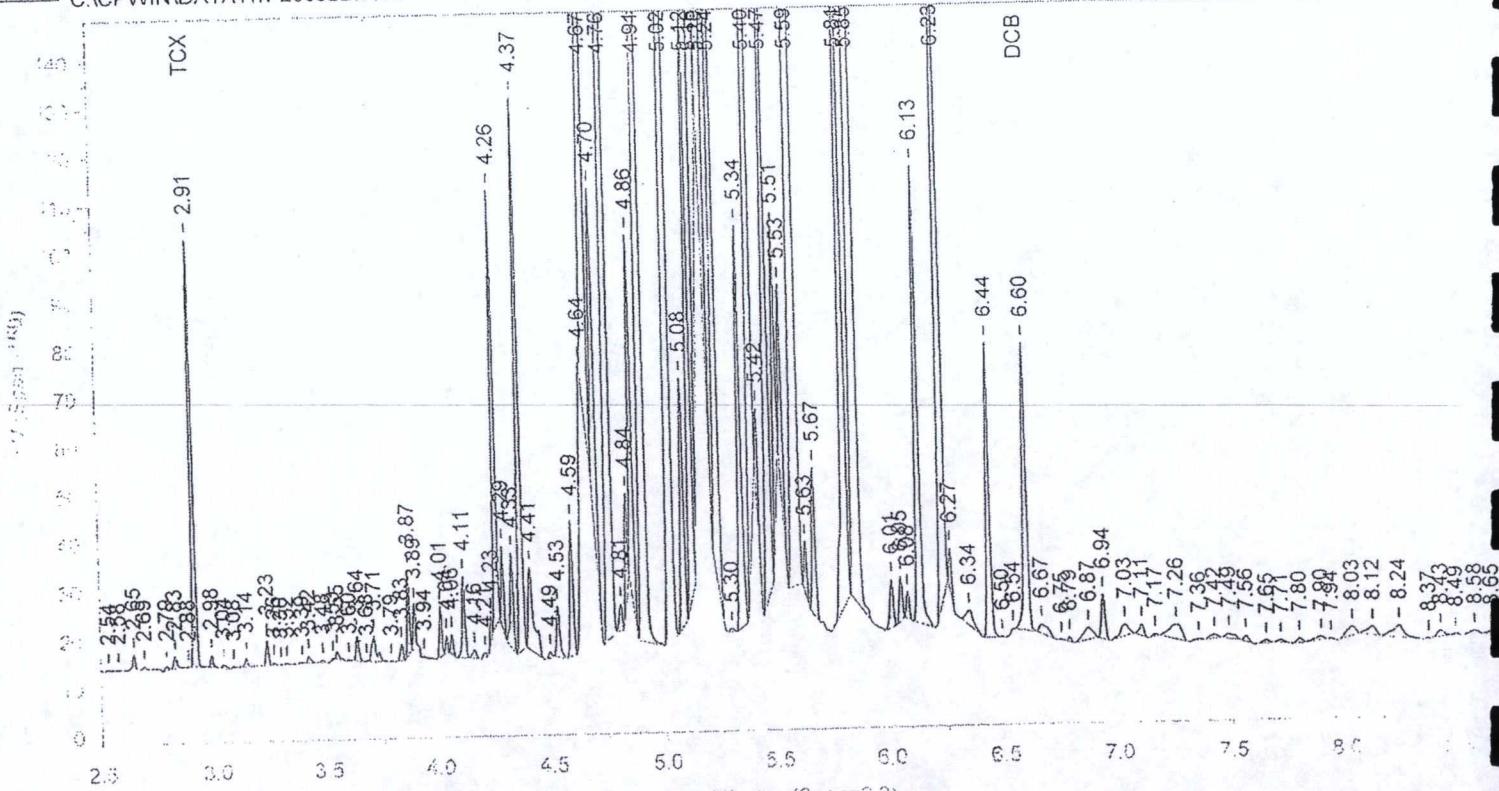


Instrument ID: CP08--17342A Injected On: 2/2/2012 1:55:36 PM

Column ID: ZB MULTIRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\1P20032B.77R

6532802ACF DF5 AC49402 T 120310008A 01216
C:\CPWIN\DATA1\1P20032B.77R



Instrument ID: CP08--17342B Injected On: 2/2/2012 1:55:36 PM

Column ID: ZB MULTIRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532803 ACF DF50 49404 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on	Feb 02, 2012 14:07:02			
Instrument	17342A			
Result file	1P20032.78R			
Calibration file	1P20032			
Method file	PESTD			
%SSR(TCX)	113.5%	Conc:	11.70280	<i>✓</i>
%SSR(DCB)	* 0.0%	Conc:	0	
Min	RT	Max	Height	
<u>Aroclor-1260</u>				
4.88	4.91	4.94	11471.964844	3692.676698
5.09	5.12	5.15	12318.237305	3445.448757
5.30	5.33	5.36	12795.96582	3257.870957
5.53	5.56	5.59	9330.012695	3440.315836
5.77	5.80	5.83	25666.994141	4489.786183
5.98	6.00	6.04	13494.151367	4232.200546
Height summation:	85077.326172			
Concentration	CF: 3759.716496			L:

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<850	<165			4	40	
Aroclor-1221			<850	<165			3	40	
Aroclor-1232			<850	<165			4	40	
Aroclor-1242			<850	<165			4	40	
Aroclor-1248			<850	<165			4	40	
Aroclor-1254			<850	<165			4	40	
Aroclor-1260	A	3759.716496	850	195		11.19	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: Melissa A. McDermott

Date: 2/2/12

Verified by: _____

Date: _____

FEB 06 2012

Melissa A. McDermott
Senior Chemist

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532803 ACF DF50 49404 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342A
 Result file : 1P20032.78R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET
 %SSR(TCX) : 113.5% (53-139) Conc.: 11.702801
 %SSR(DCB) : *-599.2% (53-133) Conc.: -59.915035

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	136.85		
Aroclor-1016							
3.58	3.61	3.64	32.059074	13.624858	3		
3.77	3.80	3.83	35.461483	7.833475	4		
3.87	3.90	3.93	34.1241	14.621489	5		
4.16	4.19	4.22	190.498154	115.726119	6		

Height Summation: 292.142811
 Amount Avg CF: 37.951485 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	135.81		
Aroclor-1232							
3.58	3.61	3.64	32.059074	25.227474	2		
3.77	3.80	3.83	35.461483	14.866676	3		
3.87	3.90	3.93	34.1241	27.695885	5		
4.17	4.19	4.23	190.498154	212.799546	6		

Height Summation: 292.142811
 Amount Avg CF: 70.147395 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				4	131.23		
Aroclor-1242							
3.58	3.61	3.64	32.059074	16.198815	3		
3.77	3.80	3.83	35.461483	9.502769	4		
3.87	3.90	3.93	34.1241	17.626995	5		
4.17	4.19	4.23	190.498154	124.022236	6		

Height Summation: 292.142811
 Amount Avg CF: 41.837704 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	135.98		
Aroclor-1248							
3.77	3.80	3.83	35.461483	16.042319	1		
3.94	3.97	4.00	205.631012	109.838585	2		
4.07	4.10	4.13	85.546776	38.59592	3		
4.17	4.19	4.23	190.498154	95.333543	4		
4.49	4.52	4.55	2517.202637	958.386688	5		
4.76	4.79	4.82	1966.189941	1402.553986	6		

Height Summation: 5000.530003
 Amount Avg CF: 436.79184 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	107.64		
Aroclor-1254							
4.49	4.52	4.55	2517.202637	751.704454	1		
4.76	4.79	4.82	1966.189941	478.016278	2		
4.98	5.00	5.04	962.274658	308.089576	3		
5.09	5.12	5.15	12318.237305	7206.934921	4		
5.18	5.21	5.24	5748.345703	2276.028112	5		
5.30	5.33	5.36	12795.96582	4054.87398	6		

Height Summation: 36308.216064
 Amount Avg CF: 2512.607887 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	13.10		
Aroclor-1260							
4.88	4.91	4.94	11471.964844	3692.676698	1		
5.09	5.12	5.15	12318.237305	3445.448757	2		
5.30	5.33	5.36	12795.96582	3257.870957	3		
+ 5.53	5.53	5.59	501.550995	184.940137	4		
5.53	5.56	5.59	9330.012695	3440.315836	5		
5.77	5.80	5.83	25666.994141	4489.786183	6		
5.98	6.00	6.04	13494.151367	4232.200546			

Height Summation: 85077.326172
 Amount Avg CF: 3759.716496 Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342B
 Result file : 1P20032B.78R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET
 %SSR(TCX) : 104.2% (53-139) Conc.: 10.743411
 %SSR(DCB) : *140.3% (53-133) Conc.: 14.031744

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	88.63		
Aroclor-1016							
3.18	3.24	3.24	681.905518	41.346401	1		
3.39	3.40	3.45	176.700974	8.244597	2		
+ 3.39	3.45	3.45	152.363831	7.109063	2		
3.52	3.55	3.58	303.413666	14.857723	3		
3.69	3.70	3.75	338.136047	7.601214	4		
3.80	3.85	3.86	279.606842	11.698524	5		
3.98	4.01	4.04	1025.516846	57.576677	6		

Height Summation: 2805.279893
 Amount Avg CF: 23.554189 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				2	57.47		
Aroclor-1221							
3.12	3.14	3.18	474.471161	64.372605	1		
+ 3.12	3.18	3.18	224.94397	30.518671	2		
3.18	3.24	3.24	681.905518	27.17069	3		

Height Summation: 1156.376679
 Amount Avg CF: 45.771648 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	104.67		
Aroclor-1232							
3.18	3.24	3.24	681.905518	29.990611	1		
+ 3.39	3.40	3.45	176.700974	15.551651	2		
3.39	3.45	3.45	152.363831	13.409712	2		
3.52	3.55	3.58	303.413666	28.78551	3		
3.69	3.70	3.75	338.136047	14.647245	4		
3.80	3.85	3.86	279.606842	22.961317	5		
3.98	4.01	4.04	1025.516846	117.672616	6		

Height Summation: 2780.942750
 Amount Avg CF: 37.911169 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	88.63		
Aroclor-1242							
3.18	3.24	3.24	681.905518	48.172478	1		
+ 3.39	3.40	3.45	176.700974	9.585549	2		
3.39	3.45	3.45	152.363831	8.265325	2		
3.52	3.55	3.58	303.413666	17.361237	3		
3.69	3.70	3.75	338.136047	9.047288	4		
3.81	3.85	3.87	279.606842	14.080383	5		
3.98	4.01	4.04	1025.516846	65.849697	6		

Height Summation: 2780.942750
 Amount Avg CF: 27.129401 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				7	140.52		
Aroclor-1248							
3.68	3.70	3.74	338.136047	16.764658	1		
3.98	4.01	4.04	1025.516846	42.333689	2		
+ 4.23	4.23	4.29	490.864319	13.602203	3		
4.23	4.26	4.29	18223.888672	504.997037	3		
4.38	4.40	4.44	2484.313232	147.614299	4		
+ 4.63	4.64	4.69	6119.537109	354.264117	5		
4.63	4.67	4.69	55763.421875	3228.181983	5		
+ 4.81	4.81	4.87	1400.489136	111.28708	6		
4.81	4.84	4.87	3733.352051	296.663384	6		
4.81	4.86	4.87	22800.265625	1811.777691	6		

Height Summation: 104368.894348
 Amount Avg CF: 864.047534 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				7	140.52		
Aroclor-1260							
4.88	4.91	4.94	11471.964844	3692.676698	1		
5.09	5.12	5.15	12318.237305	3445.448757	2		
5.30	5.33	5.36	12795.96582	3257.870957	3		
+ 5.53	5.53	5.59	501.550995	184.940137	4		
5.53	5.56	5.59	9330.012695	3440.315836	5		
5.77	5.80	5.83	25666.994141	4489.786183	6		
5.98	6.00	6.04	13494.151367	4232.200546			

Height Summation: 85077.326172
 Amount Avg CF: 3759.716496 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				7	140.52		
Aroclor-1260							
4.88	4.91	4.94	11471.964844	3692.676698	1		
5.09	5.12	5.15	12318.237305	3445.448757	2		
5.30	5.33	5.36	12795.96582	3257.870957	3		
+ 5.53	5.53	5.59	501.550995	184.940137	4		
5.53	5.56	5.59	9330.012695	3440.315836	5		
5.77	5.80	5.83	25666.994141	4489.786183	6		
5.98	6.00	6.04	13494.151367	4232.200546			

Height Summation: 85077.326172
 Amount Avg CF: 3759.716496 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				7	140.52		
Aroclor-1260							
4.88	4.91	4.94	11471.964844	3692.676698	1		
5.09	5.12	5.15	12318.237305	3445.448757	2		
5.30	5.33	5.36	12795.96582	3257.870957	3		
+ 5.53	5.53	5.59	501.550995	184.940137	4		
5.53	5.56	5.59	9330.012695	3440.315836	5		
5.77	5.80	5.83	25666.994141	4489.786183	6		
5.98	6.00	6.04	13494.151367	4232.200546			

Height Summation: 85077.326172
 Amount Avg CF: 3759.716496 Linear:

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				7	140.52		
Aroclor-1260							
4.88	4.91	4.94	11471.964844	3692.676698	1		
5.09	5.12	5.15	12318.237305	3445.448757	2		
5.30	5.33	5.36	12795.96582	3257.870957	3		
+ 5.53	5.53	5.59	501.550995	184.940137	4		
5.53	5.56	5.59	9330.012695	3440.315836	5		
5.77	5.80	5.83</td					

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532803 ACF DF50 49404 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342A
 Result file : 1P20032.78R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1262					6	16.84	
E 4.88	4.91	4.94	11471.964844	4614.442236	1		
E 5.09	5.12	5.15	12318.237305	4355.658324	2		
5.37	5.39	5.43	10610.539063	3023.203995	3		
E 5.77	5.80	5.83	25666.994141	3966.097123	4		
E 5.98	6.00	6.04	13494.151367	3473.666272	5		
6.41	6.44	6.47	7569.203613	3235.946994	6		
Height Summation:			81131.090333				
Amount Avg CF:			3778.169157	Linear:			
Aroclor-1268					6	84.96	
5.97	6.00	6.03	13494.151367	1912.436418	1		
6.03	6.06	6.09	5581.121582	938.918876	2		
6.17	6.19	6.23	494.494049	93.808747	3		
6.23	6.28	6.29	3430.437744	2237.72847	4		
6.41	6.44	6.47	7569.203613	2975.315886	5		
6.61	6.64	6.67	2211.101318	151.506521	6		
Height Summation:			32780.509673				
Amount Avg CF:			1384.952486	Linear:			

Analysis Report (B)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342B
 Result file : 1P20032B.78R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1254					7	105.12	
4.34	4.37	4.40	24013.677734	681.623346	1		
4.57	4.59	4.63	5038.633301	167.48829	2		
+ 4.63	4.64	4.69	6119.537109	122.98638	3		
4.63	4.67	4.69	55763.421875	1120.696103	3		
+ 4.81	4.81	4.87	1400.489136	38.334109	4		
4.81	4.84	4.87	3733.352051	102.1891	4		
4.81	4.86	4.87	22800.265625	624.087573	4		
5.05	5.09	5.11	15835.075195	592.452235	5		
5.14	5.16	5.20	110171.6875	2787.302772	6		
Height Summation:			237356.113281				
Amount Avg CF:			867.97706	Linear:			
Aroclor-1260					6	13.85	
4.73	4.76	4.79	122476.58593	3375.365241	1		
4.88	4.91	4.94	138799.03125	3035.905105	2		
5.00	5.03	5.06	119088.45312	3234.768795	3		
5.13	5.16	5.19	110171.6875	2747.742394	4		
5.56	5.59	5.62	304353.6875	4014.198702	5		
5.83	5.85	5.89	204670.82812	3759.812049	6		
Height Summation:			999560.273438				
Amount Avg CF:			3361.298714	Linear:			
Aroclor-1262					6	17.08	
E 4.88	4.91	4.94	138799.03125	3953.229417	1		
E 5.00	5.03	5.06	119088.45312	3420.74023	2		
5.17	5.20	5.23	111903.61718	2456.137032	3		
5.37	5.40	5.43	127341.86718	2675.388701	4		
5.56	5.59	5.62	304353.6875	3140.700734	5		
5.83	5.85	5.89	204670.82812	3096.127793	6		
Height Summation:			1006157.484376				
Amount Avg CF:			3123.720651	Linear:			
Aroclor-1268					6	118.24	
+ 5.78	5.78	5.84	2704.906494	24.35181	1		
5.78	5.81	5.84	70338.34375	633.244059	1		
5.83	5.85	5.89	204670.82812	1863.78352	2		
5.98	6.01	6.04	4190.767578	48.139862	3		
+ 6.05	6.05	6.11	3001.314697	137.507832	4		
6.05	6.08	6.11	2626.963135	120.356591	4		
6.21	6.23	6.27	87646.5625	2319.060234	5		
+ 6.21	6.27	6.27	3527.314453	93.330011	5		
6.41	6.44	6.47	25433.240234	85.922819	6		
Height Summation:			394906.705322				
Amount Avg CF:			845.084514	Linear:			

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			850	165		** 46.82	4	40	
Aroclor-1221			850	165			3	40	
Aroclor-1232			850	165		** 59.66	4	40	
Aroclor-1242			850	165		** 42.65	4	40	
Aroclor-1248			850	165		** 65.69	4	40	
Aroclor-1254			850	165		** 97.30	4	40	
Aroclor-1260			850	195		11.19	4	40	
Aroclor-1262			0	0	E	18.96	4	40	

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532803 ACF DF50 49404 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342A
 Result file : 1P20032.78R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

Analysis Report (B)

Injected on : FEB 02, 2012 14:07:02
 Instrument : CP08-17342B
 Result file : 1P20032B.78R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1268			0	0		** 48.42	4	40	
Total PCBs			0	0					

Units: ug/kg

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Printed on: 02/12/2012 20:26:58

6532803ACF DF50 AC49404 T 120310008A 01216

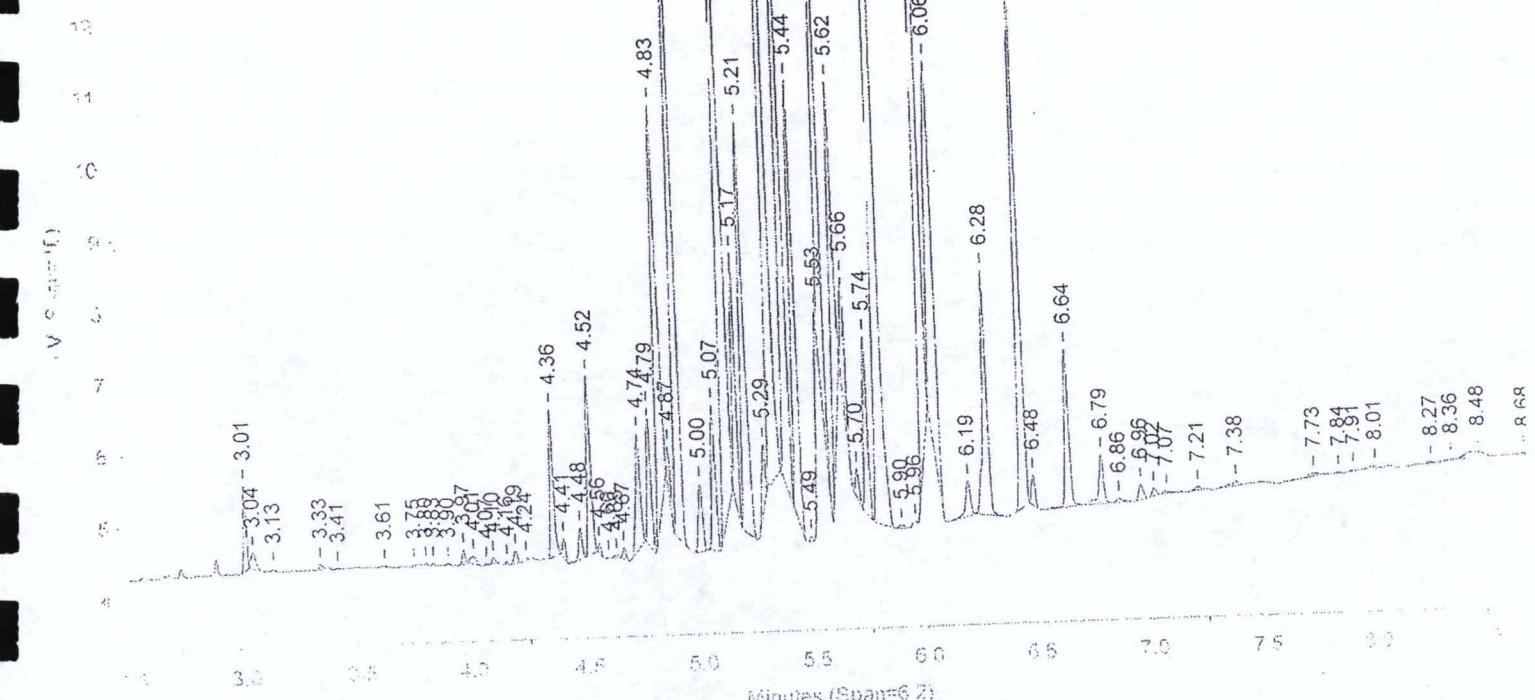
File: C:\CPWIN\DATA1\IP20032.78R

ANCASTER LABORATORIES

6532803ACF DF50 AC49404 T 120310008A 01216

C:\CPWIN\DATA1\IP20032.78R

TCX



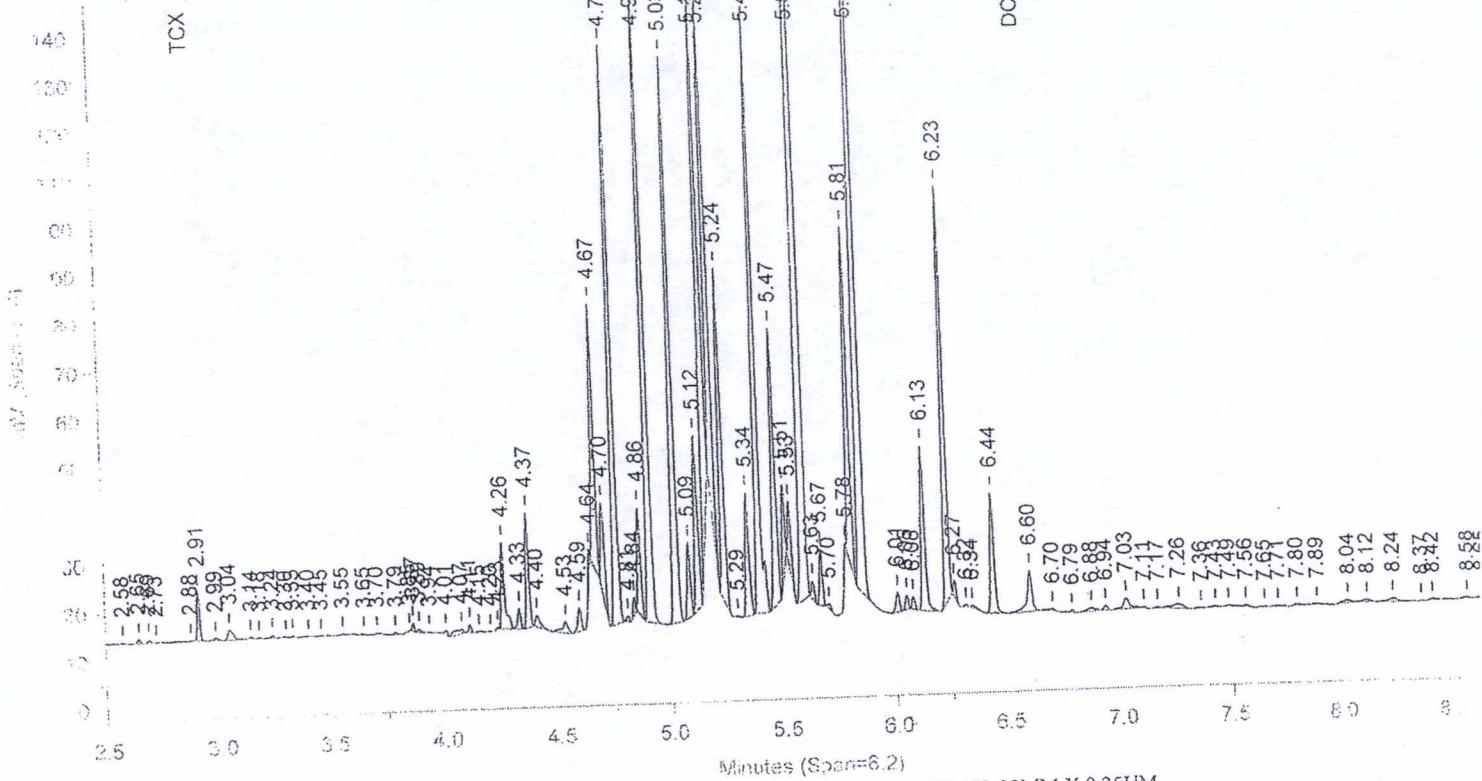
Instrument ID: CP08--17342A Injected On: 2/2/2012 2:07:01 PM

Minutes (Span=6.2)
Column ID: ZB MULTIRES 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\IP20032B.78R

6532803ACF DF50 AC49404 T 120310008A 01216
C:\CPWIN\DATA1\IP20032B.78R

TCX



Instrument ID: CP08--17342B Injected On: 2/2/2012 2:07:01 PM

Column ID: ZB MULTIRES2 30M X .32MM X 0.25UM

Multiple Component Data Summary

Sample Name: 6532805 ACF DF50 49409 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 0120 SDG: State: WA

Analyses: 01216

Analysis Report (A)

Injected on Feb 02, 2012 14:30:12
 Instrument 17342A
 Result file 1P20032B.80R
 Calibration file 1P20032
 Method file PESTDB
 %SSR(TCX) 114.7% Conc: 11.83505
 %SSR(DCB) * 0.0% Conc: 0

	Min	RT	Max	Height	Amount	Pks	%RSD	Peak
Aroclor-1260								
4.88	4.91	4.94	10477.744141	3372.649948	1	4.73	4.76	4.79
5.09	5.12	5.15	11878.920898	3322.57061	2	4.88	4.91	4.94
5.30	5.33	5.36	12141.827148	3091.326328	3	5.00	5.03	5.06
5.53	5.56	5.59	9048.370117	3336.463949	4	5.13	5.16	5.19
5.77	5.80	5.83	22943.636719	4013.404241	5	5.56	5.59	5.62
5.98	6.01	6.04	12910.879883	4049.26782	6	5.83	5.86	5.89
Height summation:			79401.378906					Height summation: 1032740.421876
Concentration			CF: 3530.947149	L:				Concentration CF: 3468.191412 L:

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	No. of Hits Required	Max %RSD	Comments
Aroclor-1016			<850	<165			4	40	
Aroclor-1221			<850	<165			3	40	
Aroclor-1232			<850	<165			4	40	
Aroclor-1242			<850	<165			4	40	
Aroclor-1248			<850	<165			4	40	
Aroclor-1254			<850	<165			4	40	
Aroclor-1260	A	3530.947149	850	195		1.79	4	40	

Units: ug/kg

%Difference = High - Low divided by the Average times 100

Reviewed by: JWAGM

Verified by:

FEB 06 2012

Date: 7/2/12

Date:

Melissa A. McDermott
Senior Chemist

Melissa A. McDermott

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532805 ACF DF50 49409 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 2855 SDG: State: WA
 Analyses: 01216

Analysis Report (A)

Injected on : FEB 02, 2012 14:30:12
 Instrument : CP08-17342A
 Result file : 1P20032.80R
 Calibration file : 1P20032.CAL
 Method file : PESTD.MET
 %SSR(TCX) : 114.7% (53-139) Conc.: 11.835052
 %SSR(DCB) : *-603.2% (53-133) Conc.: -60.315514

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				3	114.40		
Aroclor-1016							
3.77	3.77	3.83	23.506584	5.192627	4		
3.87	3.91	3.93	68.863838	29.506767	5		
4.16	4.20	4.22	184.003998	111.780971	6		

Height Summation: 276.374420
 Amount Avg CF: 48.826788

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				3	113.14		
Aroclor-1232							
3.77	3.77	3.83	23.506584	9.85477	3		
3.87	3.91	3.93	68.863838	55.891436	5		
4.17	4.20	4.23	184.003998	205.545127	6		

Height Summation: 276.374420
 Amount Avg CF: 90.430444

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				3	109.34		
Aroclor-1242							
3.77	3.77	3.83	23.506584	6.299162	4		
3.87	3.91	3.93	68.863838	35.572002	5		
4.17	4.20	4.23	184.003998	119.79427	6		

Height Summation: 276.374420
 Amount Avg CF: 53.888478

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	140.13		
Aroclor-1248							
3.77	3.77	3.83	23.506584	10.634077	1		
3.94	3.97	4.00	131.75322	70.376482	2		
4.07	4.08	4.13	69.346123	31.286713	3		
4.17	4.20	4.23	184.003998	92.083585	4		
4.49	4.52	4.55	2557.287109	973.648243	5		
4.76	4.79	4.82	1956.505371	1395.645634	6		

Height Summation: 4922.402405
 Amount Avg CF: 428.945789

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	106.60		
Aroclor-1254							
4.49	4.52	4.55	2557.287109	763.674756	1		
4.76	4.79	4.82	1956.505371	475.661785	2		
4.98	5.01	5.04	948.785645	303.770825	3		
5.09	5.12	5.15	11878.920898	6949.9075	4		
5.18	5.22	5.24	5678.505859	2248.375382	5		
5.30	5.33	5.36	12141.827148	3847.586002	6		

Height Summation: 35161.832030
 Amount Avg CF: 2431.496042

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	11.34		
Aroclor-1260							
4.88	4.91	4.94	10477.744141	3372.649948	1		
5.09	5.12	5.15	11878.920898	3322.57061	2		
5.30	5.33	5.36	12141.827148	3091.326328	3		
+ 5.53	5.53	5.59	905.068054	333.731589	4		
5.53	5.56	5.59	9048.370117	3336.463949	4		
5.77	5.80	5.83	22943.636719	4013.404241	5		
5.98	6.01	6.04	12910.879883	4049.26782	6		

Height Summation: 79401.378906
 Amount Avg CF: 3530.947149

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 14:30:12
 Instrument : CP08-17342B
 Result file : 1P20032B.80R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET
 %SSR(TCX) : 102.2% (53-139) Conc.: 10.543943
 %SSR(DCB) : *145.2% (53-133) Conc.: 14.520161

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	72.65		
Aroclor-1016							
3.18	3.24	3.24	576.946411	34.98235	1		
3.39	3.40	3.45	146.19986	6.821462	2		
3.52	3.55	3.58	180.611099	8.844261	3		
3.69	3.70	3.75	234.877426	5.279986	4		
3.80	3.84	3.86	729.367432	30.516143	5		
3.98	4.04	4.04	339.101563	19.038538	6		

Height Summation: 2207.103791
 Amount Avg CF: 17.580457

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				1			
Aroclor-1221							
3.12	3.14	3.18	204.020172	27.679891	2		

Height Summation: 204.020172
 Amount Avg CF: 27.679891

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	69.38		
Aroclor-1232							
3.18	3.24	3.24	576.946411	25.374447	1		
3.39	3.40	3.45	146.19986	12.867214	2		
3.52	3.55	3.58	180.611099	17.134965	3		
3.69	3.70	3.75	234.877426	10.174329	4		
3.80	3.84	3.86	729.367432	59.895661	5		
3.98	4.04	4.04	339.101563	38.910105	6		

Height Summation: 2207.103791
 Amount Avg CF: 27.392787

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	73.13		
Aroclor-1242							
3.18	3.24	3.24	576.946411	40.757756	1		
3.39	3.40	3.45	146.19986	7.930946	2		
3.52	3.55	3.58	180.611099	10.334512	3		
3.69	3.70	3.75	234.877426	6.284464	4		
3.81	3.84	3.87	729.367432	36.729334	5		
3.98	4.04	4.04	339.101563	21.774128	6		

Height Summation: 2207.103791
 Amount Avg CF: 20.63519

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	181.52		
Aroclor-1248							
3.68	3.70	3.74	234.877426	11.645135	1		
3.98	4.04	4.04	339.101563	13.998229	2		
+ 4.23	4.23	4.29	1633.610718	45.268526	3		
4.23	4.26	4.29	17932.908203	496.933759	3		
4.38	4.41	4.44	1419.395508	84.338428	4		
+ 4.63	4.65	4.69	5563.54834	322.077554	5		
4.63	4.68	4.69	57169.589844	3309.585992	5		
4.81	4.84	4.87	4313.20459	342.740211	6		
+ 4.81	4.86	4.87	21249.369141	1688.538791	6		

Height Summation: 81409.077134
 Amount Avg CF: 709.873626

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
				6	106.37		
Aroclor-1254							
4.34	4.37	4.40	26331.226563	747.406497	1		
4.57	4.60	4.63	5268.32373	175.123388	2		
+ 4.63	4.65	4.69	5563.54834	111.812488	3		
4.63	4.68	4.69	57169.589844	1148.95633	3		
4.81	4.84	4.87	4313.20459	118.060791	4		
+ 4.81	4.86	4.87	21249.369141	581.636523	4		
5.05	5.09	5.11	16712.148438	625.266983	5		
5.14	5.16	5.20	111758.92187	2827.459212	6		

Height Summation: 221553.415040
 Amount Avg CF: 940.378867

Linear:

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

Lancaster Laboratories-Multiple Component Peak Data Report

Sample Name: 6532805 ACF DF50 49409 Sample ID: AC Batchnumber: 120310008A
 Sample Amount: 30 g Total Volume: 500 ml Analyst: 2855 SDG:
 Analyses: 01216 State: WA

Analysis Report (A)

Injected on : FEB 02, 2012 14:30:12
 Instrument : CP08-17342A
 Result file : 1P20032.B80R
 Calibration file : 1P20032.CAL
 Method file : PESTDB.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
-----	------	-----	--------	--------	-----	------	------

Aroclor-1262
 E 4.88 4.91 4.94 10477.744141 4214.530446 6 15.62
 E 5.09 5.12 5.15 11878.920898 4200.318552
 5.37 5.39 5.43 10138.442383 2888.69202
 E 5.77 5.80 5.83 22943.636719 3545.280413
 5.98 6.01 6.04 12910.879883 3323.520448
 6.41 6.44 6.47 7303.80127 3122.483549

Height Summation: 75653.425294

Amount Avg CF: 3549.137571

Linear:

Aroclor-1268
 5.97 6.01 6.03 12910.879883 1829.773226 6 80.12
 6.03 6.06 6.09 5725.520508 963.211283
 6.17 6.20 6.23 1115.213501 211.563277
 6.23 6.28 6.29 3333.792969 2174.685564
 6.41 6.44 6.47 7303.80127 2870.991065
 6.61 6.64 6.67 2612.301514 178.997096

Height Summation: 33001.509645

Amount Avg CF: 1371.536919

Linear:

Analysis Report (B)

Injected on : FEB 02, 2012 14:30:12
 Instrument : CP08-17342B
 Result file : 1P20032B.B80R
 Calibration file : 1P20032B.CAL
 Method file : PESTDB.MET

Min	R.T.	Max	Height	Amount	Pks	%RSD	Peak
-----	------	-----	--------	--------	-----	------	------

Aroclor-1260
 4.73 4.76 4.79 121662.00781 3352.916063 6 13.97
 4.88 4.91 4.94 149915.57812 3279.053642
 5.00 5.03 5.06 122751.00781 3334.253819
 5.13 5.16 5.19 111758.92187 2787.328891
 5.56 5.59 5.62 312508.625 4121.756261
 5.83 5.86 5.89 214144.28125 3933.839796

Height Summation: 1032740.421876

Amount Avg CF: 3468.191412

Linear:

Aroclor-1262
 E 4.88 4.91 4.94 149915.57812 4269.847333
 E 5.00 5.03 5.06 122751.00781 3525.944789
 5.17 5.20 5.23 118845.92187 2608.511477
 5.37 5.40 5.43 130195.72656 2735.346853
 5.56 5.59 5.62 312508.625 3224.853544
 5.83 5.86 5.89 214144.28125 3239.436059

Height Summation: 1048361.140626

Amount Avg CF: 3267.323343

Linear:

Aroclor-1268
 5.78 5.81 5.84 82495.554688 742.693346
 5.83 5.86 5.89 214144.28125 1950.051143
 5.98 6.01 6.04 5708.54834 65.574797
 + 6.05 6.05 6.11 2618.418701 119.96512
 6.05 6.08 6.11 3721.625732 170.509506
 6.21 6.24 6.27 93999.703125 2487.15942
 6.41 6.44 6.47 32721.132813 110.543994

Height Summation: 432790.845948

Amount Avg CF: 921.088701

Linear:

Summary Report

Compound Name	Column	Higher Amount Found	LOQ	MDL	Qualifiers	%Difference	No of Hits Required	Max %RSD	Comments
Aroclor-1016			850	165		** 94.11	4	40	
Aroclor-1221			850	165			3	40	
Aroclor-1232			850	165		** 107.00	4	40	
Aroclor-1242			850	165		** 89.24	4	40	
Aroclor-1248			850	165		** 49.34	4	40	
Aroclor-1254			850	165		** 88.44	4	40	
Aroclor-1260			850	195		1.79	4	40	
Aroclor-1262		0	0	E		8.27	4	40	
Aroclor-1268		0	0			39.30	4	40	
Total PCBs		0	0						

Units: ug/kg

* Peak found within more than one window

+ Duplicate Peak in window - not included in average

6532805ACF DF50 AC49409 T 120310008A 01216

Page 1

LANCASTER LABORATORIES

6532805ACF DF50 AC49409 T 120310008A 01216
C:\CPWIN\DATA1\1P20032.80R

File: C:\CPWIN\DATA1\1P20032.80R

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Instrument ID: CP08--17342A Injected On: 2/2/2012 2:30:11 PM

Column ID: ZB MULTIRE 30M X .32MM X .5UM

File: C:\CPWIN\DATA1\1P20032B.80R

6532805ACF DF50 AC49409 T 120310008A 01216
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